

college AND UNIVERSITY **business**

JUNE 1961

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An Open Letter to
College and University
Administrators

In the face of almost universal needs for expansion of financial resources and facilities for higher education, there are searching questions which must be answered for every college which will seek private, corporate, foundation and or government support.

For example:

How much can you pay your faculty ten or twenty years hence?
How much tuition can you charge in 1970-75?
How large can you become?
How much of your budget should go for plant maintenance?
How much for student services?
What is your ideal student-teacher ratio?
How much scholarship and student aid should you provide?

and many others.

Recently a substantial body of research has become available which has made possible the establishment of desirable norms against which your own operations can be measured. We have undertaken the task of interpreting for the individual college its own potentials as a basis for setting and accomplishing its financial goals.

We call this "Projective Resources Programming" and once installed within an institution we assume the responsibility of helping an institution fulfill its program.

We welcome an invitation to further discussion of your needs, and, of course, the opportunity to present our credentials.

Sincerely,


Walter L. Darling

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QUESTIONS AND ANSWERS

Handling U.S. Mail

Question: How does an institution develop a campus mail pickup and delivery system that will function in an entirely satisfactory manner? — P.K.E., Mont.

ANSWER: The handling of mail in any institution, in my opinion, will never prove to be satisfactory to all of the personnel at an institution. To make them all happy you would have to handle all mail in "zero" time which would, therefore, require an infinite number of men. The problem then resolves itself into giving some service which is reasonable and economical.

We have run many analyses on our mail system here at M.I.T. and have never come up with a system that would completely satisfy everyone, including ourselves.

We pick up mail from the post office twice a day, 7 a.m. and again at 1 p.m. The count runs on an average about as follows: first-class mail in the morning, six bags; second-class mail, 14 bags; parcel post, 10 bags. Afternoon mail runs about as follows: first-class mail, five bags; second-class mail, five bags; parcel post, about one bag.

We deliver to the post office each day, on an average, about the following: first-class mail, two bags; second-class mail, eight bags; parcel post, eight bags. Our interdepartmental mail amounts to about 10 bags a day.

The mail is picked up at the post office by an M.I.T. truck at 7 a.m. and delivered very shortly thereafter to our mail room located in our main group. In this mail room we have four mail sorters who sort the first-class mail in accordance to buildings. The first-class mail is usually sorted and turned over to the janitors in the various buildings shortly after 9 a.m.

The janitors then deliver this mail after a little resorting to the desks of the various recipients. The mail is on the desk sometime between 10 a.m. and 12 noon, depending on the size of the building and the amount of mail in a given delivery. We feel that this service is about as good as we can afford. We

also feel that in an institution of our kind this is adequate service.

After the first-class mail has been disposed of, we sort and deliver second-class mail and parcel post. We deliver third-class mail only if it is properly addressed, so that it can be sorted with greater ease. Incidentally, our interdepartmental mail is sorted with the first-class U.S. mail.

We make no deliveries in the afternoon. However, we do sort the incoming afternoon mail and have it ready for the next morning's delivery.

Probably our biggest difficulty in the handling of mail is the fact that it is not properly addressed. These pieces of mail are handled by two mail clerks at a post office setup in our superintendent's office. This post office section performs all the duties relative to mail as does a U.S. post office. We do not, however, issue money orders and similar services given by the U.S. post office.

The handling of mail consists of some very simple functions and really only amounts to (1) the pickup at the U.S. post office, (2) the sorting by buildings, (3) the delivery to the offices, and (4) the handling of improperly addressed mail. Nothing but labor is involved, and it is for this reason that I mentioned before that the only problem connected with rapid delivery of mail is an economic one.

At one time, we thought we could improve our mail service by sorting in accordance to departments, then delivering the mail to departmental headquarters and have each person report to his department headquarters for his mail. This would simplify the sorting and delivering problems. However, our departmental heads were not anxious to take part in any mail services, and this was never tried.

Such things as registered letters, telegrams and so forth are delivered by messenger service as soon as possible after they arrive at the Institute. — CARL M. F. PETERSON, director of physical plant, Massachusetts Institute of Technology.



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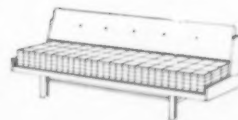


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LETTERS TO THE EDITOR

Financial Reporting

Washington, D.C.

Editor:

It is with great interest I note that you [the Editor of College and University Business] are to speak at the next meeting of the Central Association on the subject of financial reports. I am anxious to learn your present views on the subject. In the July 1957 issue of C.U.B. you kindly published some of my thoughts on the subject. Truthfully I have not seen much improvement in the reports which have been published in recent years, nor many new reports which have been published since that time. The Office of Education does not request copies of reports, and its files are incomplete.

Many colleges now feel that reports should be brief because the public does not have time to read them. Some institutions, e.g. California and Illinois, publish two kinds: a brief one for the general public and a complete one. The only reason I have not advocated this plan is that most institutions have a hard time getting an appropriation for printing one report, much less two. Only about one-fifth of all institutions publish printed reports. Wesleyan University in Connecticut has a report which I consider excellent and combines very well the two ideas. There are few institutions which follow the National Committee recommendations in full in reporting changes in funds. There are still fewer who explain briefly at the beginning in a letter of transmittal the principal changes which have taken place during the year for the benefit of those who are not expert in interpreting figures.—J. HARVEY CAIN, *educational consultant*.

No Cards, Please

Provo, Utah

Editor:

I am writing this letter to express the appreciation of the Brigham Young University for the article in the April issue of C.U.B. entitled "Centralized Food Service Rates Student Praise at Brigham Young." We appreciate the recognition given by the publication of this article. I would also like to thank you for the quality

of the articles appearing each month in your magazine and for the help which they give to those of us who are involved in the administrative functions of the university.

Wells Cloward, our director of food services, reported to me he had had occasion to see you in Colorado Springs and that he discussed with you the caption under the photograph on the last page stating "Landscaped patio area (above) has outdoor furniture for card playing and lounging." I think he explained to you that we do have a policy at the university which does not permit card playing, and that we were, therefore, disappointed that reference had been made to this in the article regarding our new student residence halls.

I can realize how easy it is to have something like this happen when you do not have all the background of tradition about each of the universities about which you write. My only reason for calling it to your attention is that there are others who know of our policy here at the university, and the caption might have raised some question in their mind as to whether we have had a modification of policy.

I am sure you will understand the spirit intended by this observation on the above subject. Again, many thanks to you for the helpfulness you give to all of us. — BEN E. LEWIS, *vice president and director, auxiliary services, Brigham Young University*.

Flying South

Cedar Rapids, Iowa

Editor:

I am most pleased that I can now announce my appointment with Winthrop College Food Service. I could not have pinpointed a more ideal southern location than Rock Hill, S. C. I go to Winthrop in late June.

I am also pleased that I can say it was the ad in College and University Business that did the trick. Thanks so very much. — ILEE SMITH, *director food services, Coe College*.

Updates Tax Data

Seattle

Editor:

In the April 1961 issue of COLLEGE AND UNIVERSITY BUSINESS you published a paper that I presented at the



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Vol. 30, No. 6, June 1961

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7

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(Continued From Page 6)

annual meeting of the Western Association of College and University Business Officers in May 1960 on "How To Help Foreign Scholars Understand U.S. Taxes." It was an unexpected pleasure to find this article in your magazine.

I would like to bring up to date some of the information included in the paper.

The article states: "Income covered by specific provisions of tax treaties is not subject to this general rule. For example, the withholding rate for Canadian residents is 15 per cent." Since the time I presented this paper, I have learned that the United States tax treaty with Canada was amended to provide that income "other than earned income" is taxed at the rate of 15 per cent. Income earned in the United States by a Canadian resident, therefore, falls under the general rule stated in Section 1441 of the Internal Revenue Code which provides a withholding rate of 30 per cent.

Another statement made in the article is: "The treaties with France and India are the most liberal toward foreign scholars at educational institutions." In my original paper I had footnoted the fact that the treaty with India had not yet been ratified. As of this date, the instruments of ratification have still not been exchanged between the two countries, and the tax treaty with India is therefore not yet effective.

The article also indicates that the local District Director of Internal Revenue had informed the University of Washington that it was not required to withhold tax on amounts over \$300 per month which are taxable under fellowship grants. The District Director has since advised the university that it should withhold tax at the rate of 30 per cent on the taxable portion of research grants received by nonresident aliens. This decision is in accordance with U.S. Treasury Department Information Guide No. 7, which states that such income is taxable at 30 per cent without allowance for exemptions or deductions.

I have always enjoyed COLLEGE AND UNIVERSITY BUSINESS for its exchange of ideas and breadth of content, and I am pleased that you felt my paper was worthy of publication. —GENEVIEVE MICHEL, assistant to the business manager, University of Washington.



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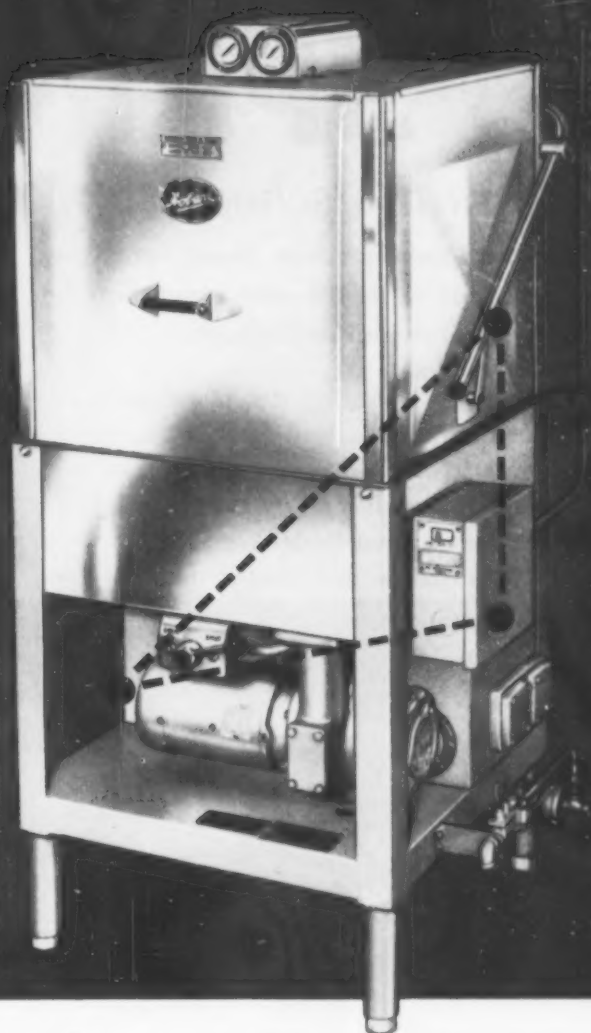
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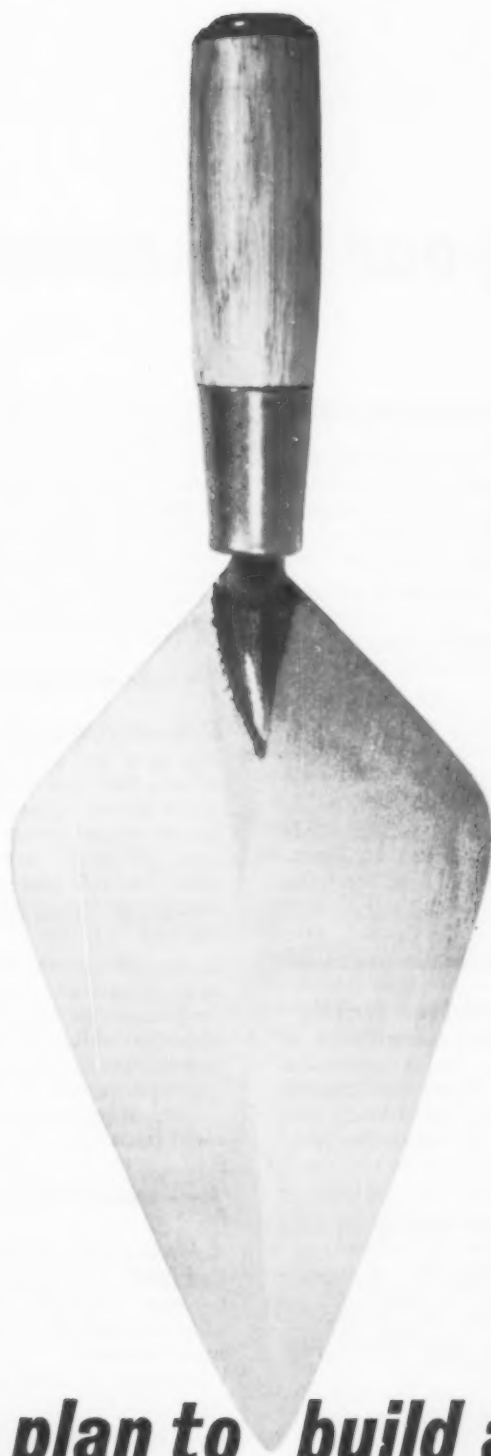


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A great help at this stage . . . for school management, architect and engineer alike . . . is the counsel of your local Gas Company regarding the economy and application of modern gas equipment for these systems.

Heating, cooling and ventilating facilities in many of the largest, most modern schools have been planned with the help of local Gas Companies' application specialists.

You can take advantage of this qualified help by setting up a very effective Planning Team: School Management—Architect—Engineer—Gas Company.



2. The Complexity of Specification Writing

Your architect's and engineer's knowledge of specification writing plays a major role in increasing the value of your school and keeping costs at a minimum. But *your* acquaintance with this vital function of school planning can be of assistance to them.

There are four major recognized methods of specifying materials and equipment for new building projects, such as your new school:

- a.** The "Descriptive" Specification. Materials and equipment are described in detail, but no brands specified. Time may be lost in seeking the exact equipment described, and there is little assurance of quality.
- b.** The "Flat" Specification. Exact brand is specified. No substitutes allowed. No protection against high costs.
- c.** The "Open" or "Or Equal" Specification. Several makes are named, or the specification describing the required equipment includes an "or equal" clause. Contractor must submit his lowest bid regardless of quality. Manufacturers may hesitate to bid their lowest prices, since contractor is free to "shop" for even lower prices (to his

advantage) after he is awarded the contract.

d. "Base Bid With Alternate." Specific brands are specified for the base bid, but a bidding contractor may propose substitutes. This assures quality and permits alternatives, providing the contractor states in his bid to you the actual deduction or addition. You can then compare price, quality and service of several manufacturers on an equitable basis. *School authorities agree that this is the most acceptable type of specification.*



3. Specifying for Present and Future Needs

You may not plan now to operate an all-year school. But this subject is being considered by many school authorities. In fact, an 11- or 12-month school has been tried and is now being used. If there's a possibility your school may change to this system in the future, it would be wise to plan *now* for year 'round heating, cooling and ventilation.

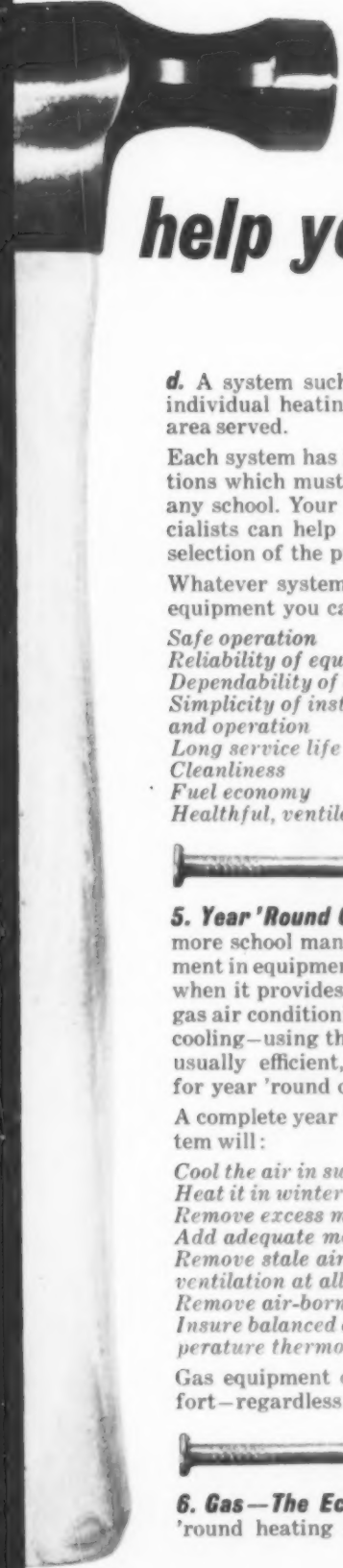
Even your *present* needs may call for an all-year operation, with such activities as summer school programs (including "make-ups" or, in the case of gifted children, "speed-ups") . . . community recreation . . . adult education . . . civic functions . . . or perhaps a community library service. The success of such projects is well worth the investment in facilities for year 'round comfort.



4. Wide Choice of Systems for Year 'Round

Comfort The makers of modern gas equipment for year 'round heating, cooling and ventilation offer an unusual variety of systems—designed to meet the needs of every type and size of school, regardless of geographical location. Here are some of the choices:

- a.** A conventional hot water system using convectors or radiators, usually supplemented with exhaust fans for ventilation.
- b.** Radiant gas heating used in combination with a ventilating system.
- c.** A central or zoned system combining heating, cooling and ventilating in the same system of ducts.



help you build a better school

d. A system such as the unit ventilator, using individual heating and ventilating units in the area served.

Each system has its own advantages and limitations which must be considered in the plans for any school. Your Gas Company application specialists can help you and your architect in the selection of the proper system.

Whatever system you choose, with modern gas equipment you can be sure of:

Safe operation

Reliability of equipment

Dependability of energy source


Simplicity of installation, maintenance and operation

Long service life

Cleanliness

Fuel economy

Healthful, ventilated air



5. Year 'Round Gas Air Conditioning More and more school managements agree that an investment in equipment to condition air is worth more when it provides year 'round service. And since gas air conditioning systems deliver heating and cooling—using the same basic fuel—they are unusually efficient, economical and space-saving for year 'round operation.

A complete year 'round gas air conditioning system will:

Cool the air in summer

Heat it in winter

Remove excess moisture in summer

Add adequate moisture in winter

Remove stale air and provide effective fresh air ventilation at all times

Remove air-borne dirt


Insure balanced distribution of the air, with temperature thermostatically controlled.

Gas equipment offers complete classroom comfort—regardless of weather or season.



6. Gas—The Economy Fuel For modern year 'round heating and cooling systems, no other


fuel matches the long-run economy of gas. Fuel costs—as opposed to first costs—will continue for the life of your school. So they deserve serious consideration in your original planning. As a matter of record, many schools have amortized the first cost of their gas equipment through comparative savings on fuel. Thrifty gas keeps your operating costs down all year, every year.



7. Gas—The Safest Fuel The gas industry has a prime interest in the safety of your pupils. The more than 200,000 people in the gas industry—most of them with children of their own—have seen to the security of each installation.

No other industry in the United States has encouraged such rigid self-regulation to insure the safety of its product in homes and schools. Through the American Gas Association Laboratories, gas equipment is tested to meet the stringent requirements of the American Standards Association. The gas industry has drafted safe installation methods which are practiced by every Gas Company in the country.

Most important, the gas industry has cooperated with municipal authorities to have your building codes reflect the most up-to-date practices regarding the safe installation and safe operation of gas equipment.



8. Gas—For Complete Classroom Comfort All Year Long Your pupils can learn more—your teachers can teach more effectively—in more comfortable surroundings. Let your Gas Company help you and your architect choose the most efficient system for heating, cooling and ventilating. Just call your Gas Company and ask for their Application Specialist.
American Gas Association.

FOR COMPLETE CLASSROOM COMFORT

HEAT AND COOL WITH GAS 

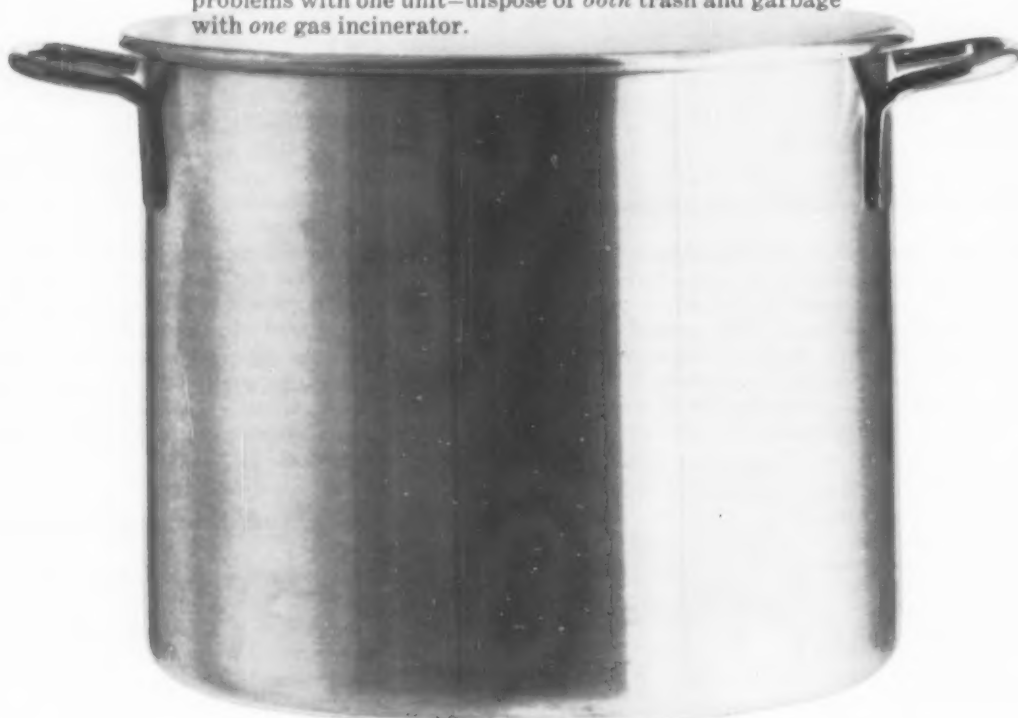
When you plan your school kitchen...

let the Commercial Specialist from your local Gas Company help you, your architect and engineer lay out the most efficient and economical cooking, water heating, and incineration facilities.

For Cooking . . . gas gives your dieticians the dependable, economical operation necessary in running an efficient kitchen. Gas equipment costs less to use and maintain. There is no worry about power failures. Modern stainless steel ranges, ovens, fryers, and broilers are easy to clean . . . and keep clean.

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For Incineration . . . many modern schools are finding great advantages in eliminating rubbish storage space by installing gas incinerators. They can be installed externally. No need for refrigerated storage in hot months. Solve two problems with one unit—dispose of *both* trash and garbage with *one* gas incinerator.



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H-500

H-570

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H-10

H-80 AD



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H-90 TD

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furniture, the advantages you look for
quickly come to light. True comfort,
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perfection, rugged durability,
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methods require—all are there, ready
to serve your needs, whatever they
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specific needs and *your* school's
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Chairs fold compactly with one simple motion, can be stored neatly, require a minimum of storage space.



T-300

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Structural Corrugated Glass Enhances Exterior... Screens Interior of College Building

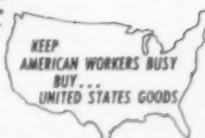
Architect Richard J. Neutra has achieved an exterior treatment as dramatic as a Broadway hit with this striking installation of rhythmic, translucent Structural Corrugated glass. This modern material... an accomplished performer in daylighting... effectively screens with light instead of darkness... protects privacy beautifully and lends itself especially well to today's designs and needs.



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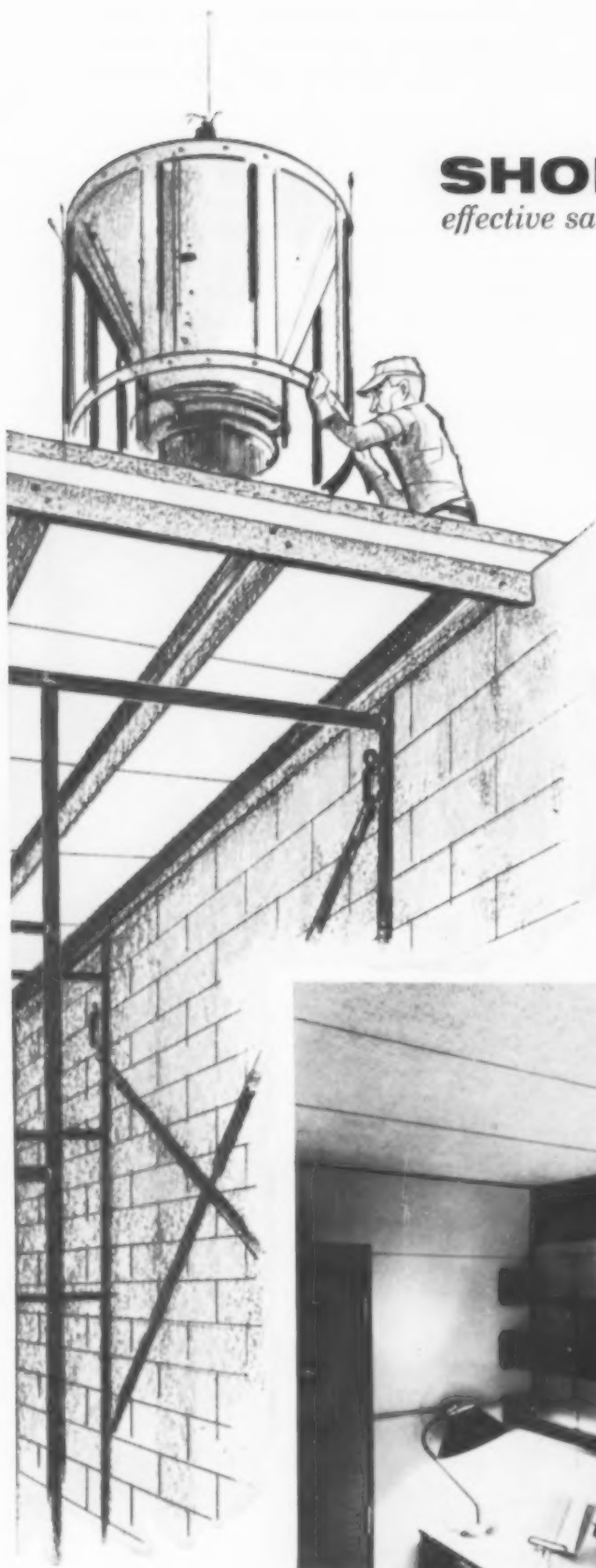
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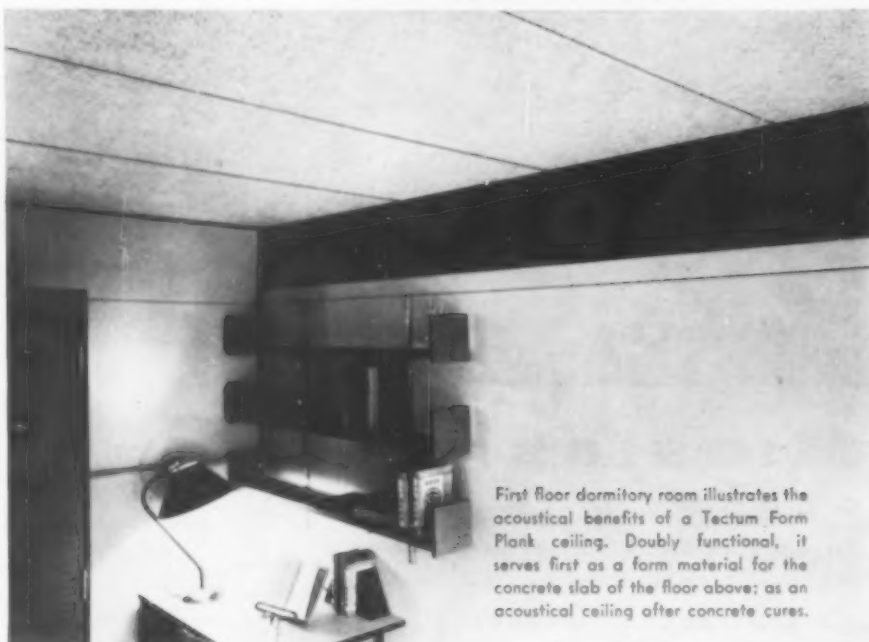
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Tectum



First floor dormitory room illustrates the acoustical benefits of a Tectum Form Plank ceiling. Doubly functional, it serves first as a form material for the concrete slab of the floor above; as an acoustical ceiling after concrete cures.

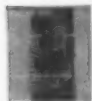


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Tested and ready for lowering long lengths.



Quality Piping Systems . . .
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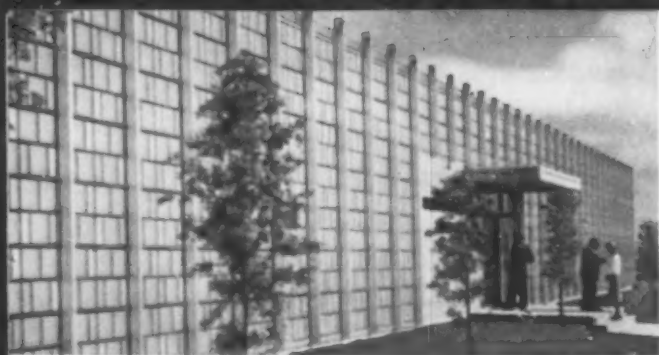
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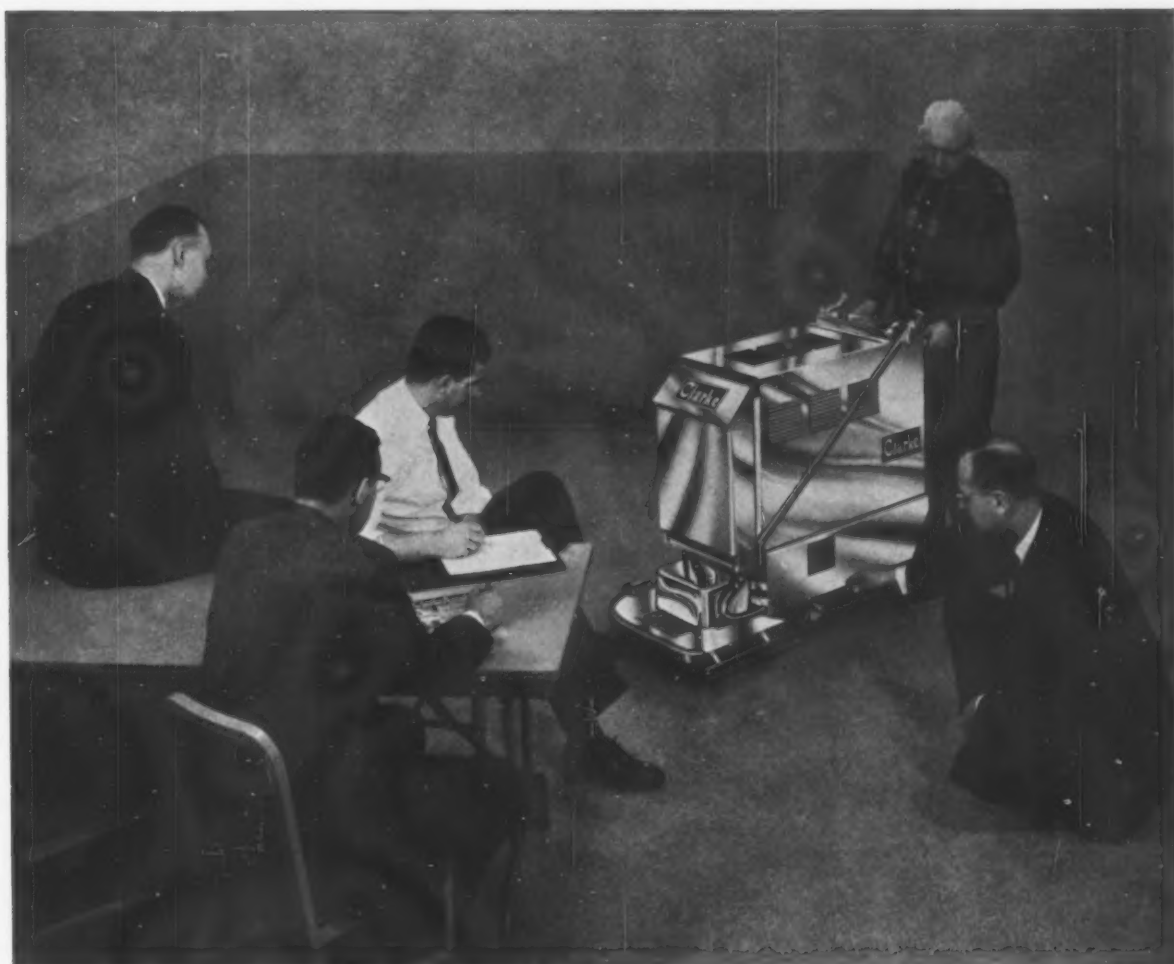
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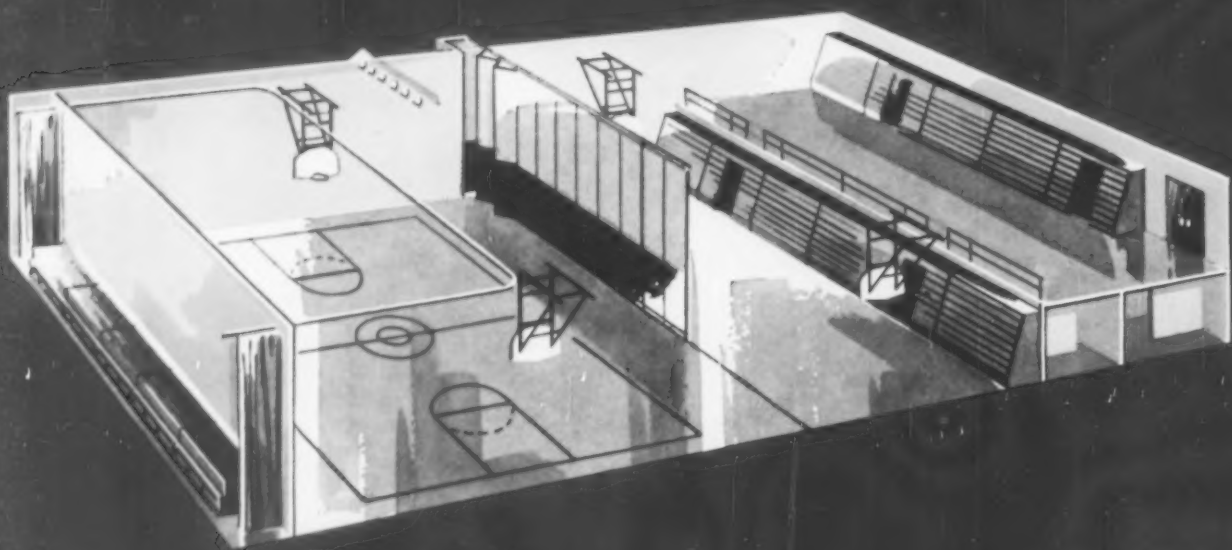


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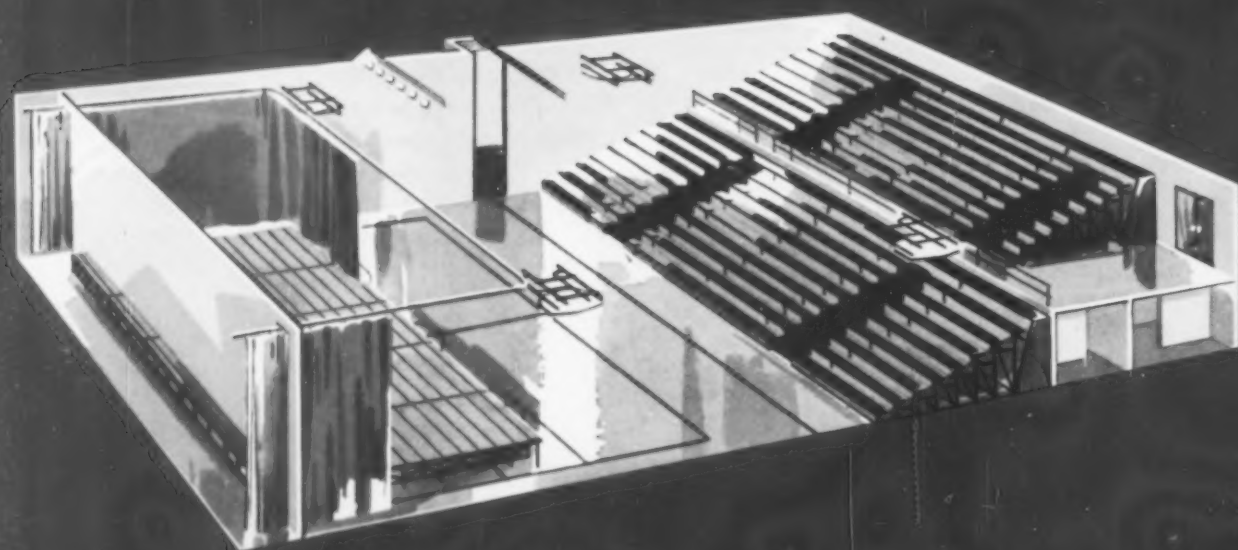
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It's easily done with the *planned* use of Brunswick folding seating, partitions, backstops and stages.

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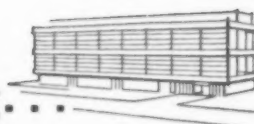


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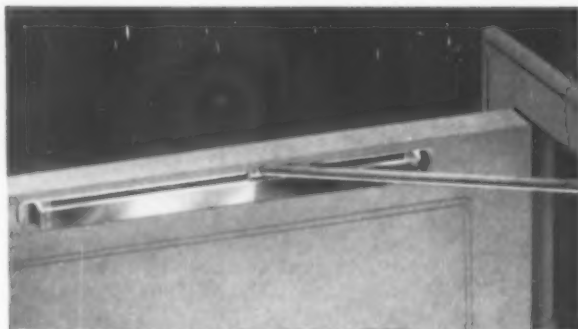
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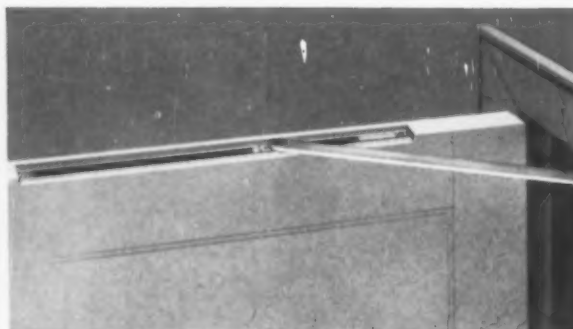
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russwin door holders



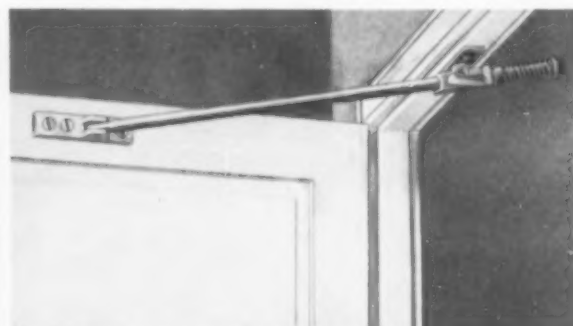
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Academic Administrators, Unite!

Francis H. Horn

President, University of Rhode Island, Kingston



CHANCELLORS, presidents, academic vice presidents, provosts, deans, associate deans, assistant deans, assistants to the dean, directors of upper-class core programs, coordinator of lower divisions, academic administrators all, it is time for us to unite against the common foe — the faculty!

We administrators once enjoyed both power and prestige; we had something to do with the running of the institutions we served. But bit by bit we have been shorn of our power. While we still enjoy a dubious prestige beyond the gates, within the groves of academe we are barely tolerated — if not actually scorned — by our erstwhile colleagues, the professors.

For years the faculty has been hacking away at whatever authority we once exercised. We have lost control over personnel through salary, promotion and tenure policies legislated by the faculty. We have been shoved aside in curricular matters because the faculty has "ultimate legislative power on educational policy." If we sit in the faculty senate at all, we often are denied the vote and may be made to feel that we should not even speak. And now that professors enjoy a sellers' market, and that money from grants flows so freely into departmental and professorial coffers, we no longer have the control we formerly had when the purse strings were in our hands. Instead of the strong educational leadership presidents once exercised, they have been reduced to the level of campus planners, institutional fund raisers, and public relations front men.

As for the deans, they have become academic bookkeepers, paper shufflers, and parliamentarians to numerous faculty committees. The trappings of administrative authority remain with administrators, but in practice administrators have but dwindling significant influence on the nature and operation of alma mater.

Not content with the *de facto* exercise of power, the faculty now plans to exercise it *de jure*. The latest proposals of Committee T of the A.A.U.P. on college and university government will not come as a surprise to many administrators who have understood the gradual erosion of their responsibility by the faculty; but the boldness of the proposals* must shock even

them. Included are provisions that call for "... membership of faculty representatives or of other persons nominated by the faculty on the governing board, joint board-faculty committees, attendance at board meetings by the principal elected officer or officers of the faculty, and systematic exchange of information between the board and faculty" (not through the president!); "legal responsibility for educational policy" assigned to the faculty; "a direct role by the faculty in the making of budget decisions at all levels"; appointments, promotions and dismissals only by processes providing for active faculty participation; election of departmental chairmen by members of the department; and the "selection and dismissal of deans, presidents and other academic administrative officers" through "meaningful participation by the faculty through its elected representatives." Acceptance of these "principles" will reduce the work of administrators to even less significance than at present.

Is it not time, therefore, not only to oppose further deterioration of the responsibility of administrators, but actually to take the offensive to recover and re-establish their power? Over the years, we administrators have fought for the faculty before our boards and defended them against pressures from public and government alike, sometimes at the cost of our jobs. We have proclaimed that our only reason for existence was to facilitate the conditions of their work. We have considered that we too were faculty, working with the professors for the institution's welfare.

Perhaps the time has come for us to take faculty members at their word, to regard them as our opponents, and to organize against them. Should we not throw down the gauntlet, issue a manifesto, in effect, declare war? Should we not establish the A.A.A.A. — the American Association of Academic Administrators — to counter the A.A.U.P.? Might we not adopt as our motto: "*Professorum commoditas haud finis noster*" (freely: The reason for our existence is not the convenience of the faculty!)?

Fellow administrators, we have been kicked around long enough. Let us fight to restore administration to the administrators. Blood may run deep in the Halls of Ivy, but our cause is just. To the barricades!

*A.A.U.P. Bulletin, Summer 1960, Pp. 203-4.

JUNE 1961

Cooperative Effort

IT IS an encouraging sign in higher education to note the frequency with which groups of colleges announce their intention to work cooperatively on matters of mutual interest. The most recent group to be established, the Great Lakes College Association, will bring together 12 liberal arts colleges in Ohio, Indiana and Michigan for purposes of cooperative effort. The group includes Antioch, Denison, Kenyon, Oberlin, Ohio Wesleyan, and Wooster in Ohio; Earlham, DePauw and Wabash in Indiana; Albion, Hope and Kalamazoo in Michigan. Student enrollments at these institutions total 16,300; they have a teaching faculty of 1223.

In commenting on some of the factors that brought the association into being, President Byron K. Trippett of Wabash College stated:

"We have been drawn together by common interests in improving the work we do in the basic liberal arts studies, by a mutual respect for one another, and by the belief that we can develop significant innovations in education by working together which we could not so well accomplish working alone. . . .

"The Great Lakes College Association does not intend to force any uniformity upon its members, nor will it interfere with their loyalty to other state, denominational or regional associations. Specifically, the group will not engage in fund raising for general operations, as all of the members are active participants in their state associations of private colleges. Support for special projects will be sought from foundations and other appropriate sources."

This sort of attitude makes a lot more sense than the wasteful practice of trying to duplicate a neighboring institution's facilities and programs. The costs of education are such that they must be held in check or reduced if possible. Commenting on this situation, Sidney G. Tickton of the Ford Foundation staff had this to say:

"The drastically rising costs in education mean that the private colleges of America must quickly find ways of strengthening their educational programs. Cooperative efforts by like-minded institutions seem to be among the most promising ways of accomplishing these purposes and of adding to their existing advantages as smaller institutions some of the advantages of the larger universities."

By participating in such ventures, small liberal arts colleges can enrich their academic offerings and performance without the crushing burden of an overextended

building program or needless proliferation of courses and addition of excessive personnel. The small liberal arts colleges are not finished — they are very much alive.

College the Year-Round

EXCEPT for some of the large universities with extensive graduate work curriculum during summer months, most institutions of higher education have in the past indulged in a long summer siesta. This comfortable practice is being sharply challenged these days.

The average college campus, in terms of its physical plant, represents a multimillion dollar capital investment. Morton A. Rauh, vice president and director of development at Antioch College, estimates that "today it costs around \$4000 merely to provide a bed for a student to sleep in, and the price of complete educational facilities is formidable. It may come as something of a shock to learn that investment in physical plant may well be as much as or more than \$15,000 a student. A college enrolling a thousand students will often find that its land, structures and equipment cannot be duplicated for \$20 million in today's market."

With this sort of a price tag involved, it is difficult to understand how a college administration can justify closing up shop for the summer. By operating 12 months a year, a college with a present nine months' enrollment of 1000 can add one-third more to its enrollment without any increase in present facilities.

A year-round policy would shorten the time a student must bear the expenses of higher education and would in most cases initiate him as a productive member of society at an earlier age. This represents a substantial saving to all.

It is obvious that year-round college would involve some modifications in the present pattern of recruiting and retaining faculty and might well alter vacation and research study schedules. It would put a premium on the efficient use of time, a commodity which, when wasted, can never be reclaimed.

If higher education is to properly educate the hordes of students crowding its campuses, it must move quickly without excessive cost or waste of men, materials or money, to avoid being overwhelmed. Certainly the idea of year-round college deserves serious consideration as one of the more effective ways of meeting the need for higher education facilities.

How *Growth* Stocks Help Endowment Funds Get Fat

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IF EVER the qualities of prudence, wisdom and old-fashioned common sense were needed in the portfolio management of university endowment funds, now is that time. Confronted on all sides by skyrocketing educational costs, portfolio managers, investment advisers, and university trustees are deeply concerned, and understandably so, about the prospects of wringing every possible cent of income from the university endowment fund. Yet it is just this desperate need for immediate endowment income that can give rise to investment decisions which in the long run may turn out to be quite costly.

The persuasion that a university's strained financial affairs can be given a needed shot in the arm by overloading the investment account with conventional, nondynamic, defensive stocks that are known more for their

ability to pay large dividends than for their reputation as vehicles for capital appreciation is almost like a Lorelei on the rocks beckoning portfolio administrators to their doom.

Evidence is accumulating that investment account managers in formulating a university's long-range and day-to-day portfolio policy must steer something of a middle course between some widely differing investment philosophies. The choice presented can be reduced to a kind of either-or alternative:

Either to continue to emphasize conventional, defensive-type issues and immediate cash income now, at the possible cost of some long-range growth in the account, or, to replace a portion of the conventional issues with low-yielding growth stocks and, as a consequence, sustain a possible, but undetermined, diminution of present income in exchange for the possibility of more dynamic capital appreciation in the future.

A university or a college cannot operate successfully without the assurance of steady income. To fulfill this objective, there is a very definite place in every institutional portfolio for the conventional type of equity issue along with proper proportions of high-grade bonds and perhaps some preferred stocks to make certain that the income needs of the institution will be satisfied.

At the present time, with the stock market reflecting the uncertainties surrounding the business economy's exposure to a troublesome recession, with profit margins in many firms undermined by rising costs, foreign competition and shifting consumer tastes, it would seem that defensive-type issues — the utilities, food chains, and small loan companies, to mention a few — would present an extra appeal to university endowment funds. Traditionally, these shares demonstrate both stability in earnings, continuity in dividend payments, and relative immunity from the ravages of the business cycle.

The present indecisiveness in the market provides an excellent opportunity to test the thesis that defensive investment is the best hedge in a falling or uncertain market. There is no better time than the present to take a critical look at the investment policies under which institutional managers have been operating. In short, what kind of quid pro quo investment philosophy are we working under? What kind of stocks are we getting for what we are paying?

One way to put the issue of defensive stock *versus* growth stock in proper perspective is to examine those lists issued periodically by brokerage firms of companies that have paid cash dividends on their outstanding shares for 50 years or more without interruption. While defensive as well as growth issues can be found on these lists, a large number of the issues provide relatively attractive dividend returns and would fall into the defensive category.

A good number of the companies listed on these investment lists have had the benefits of wise and capable management. Many of the firms have passed successfully through major wars, devastating depressions, and precedent-breaking technological innovations, to say nothing of all the other relentless changes associated with the last half century.

Admittedly, while some of these firms have been successful, and in spite of the fact that their sales and operating functions have undoubtedly been performed, admirably and capably, to the satisfaction of their

'A wise stewardship
and efficient
investment management
of every dollar
entrusted to the
college is one
practical way to
ensure the long-range
fulfillment of the
college's objectives'

owners, there is still a measure of doubt. A firm that distributes a very high percentage of its earnings in the form of cash dividends may not qualify, ideally and completely, as the best investment candidate for the trying times ahead. While it must not be inferred that good-grade defensive stocks should be reduced sharply from university accounts today, there are many reasons why these same stable stocks might not be added to college holdings at this time.

No Long-Term Equity Growth

There are several reasons why defensive stocks of the kind frequently found on lists of 50 year dividend payers are not wise choices for college funds today. For the most part, the earnings per share and the dividends of these companies follow a relatively steady trend but it can also be shown that there is little or no comparative long-term equity growth, an essential requirement for all institutional investors today. The very fact that a company is paying out between 70 to 80 per cent of its earnings in the form of cash dividends means that funds for plant or company expansion, if not neglected altogether, must be raised either from borrowing (which can turn out to be a heavy encumbrance on future earnings) or by selling additional stock, which could in time dilute the equity of existing shareholders.

Those firms, on the other hand, that pay out a lower proportion of earnings and plow back the balance into the company to help pay for expansion through research or plant and/or product improvement may be of greater long-term advantage to an investor who is willing to accept a lower current return in exchange for the possibility of a greater future income.

If the funds provided internally by retained earnings and depreciation allowances are employed creatively and wisely in discovering new products, new methods, and new procedures by means of research in modern, efficient plants financed by withheld earnings, these endeavors over a period of time should be crowned with some degree of success. While the uncertainties and economic pitfalls surrounding every business firm are very great today, some of the firms now underwriting intensive re-

search programs are looking forward with confidence to the hopeful day when their efforts will be validated in the market place with broader earning power, enhanced dividend paying ability, and greater capital appreciation.

The story of investment success in the last few years can be largely written in terms of the successful company that has grown through internal rather than external means.

Insofar as investment management is concerned, the phrase "successful company" can be a slippery term. Its meaning ought to rest on well defined and well established standards. In glancing over the spectrum of successful companies, both the stable firms and the growth issues can be found on the scale of values. While all growth companies have not been universally successful, a good number of these firms have provided increased earnings and have demonstrated their capabilities in furnishing enlarged capital gains. It would seem safe to say, therefore, that unless an equity, whether issued by a stable or a growth company, meets most, if not all, of the following specifications, there would be considerable doubt if it should be added to a university portfolio at all.

An examination of a company considered successful by its owners, customers, employees and by the general public normally should be satisfying a majority of the following conditions:

1. The company over the years has displayed a measurable increase in sales and earning power.
2. The company's products are found in markets that display above-average growth prospects.
3. Because of its size, financial strength, diversification and demonstrated management capabilities, the company is less vulnerable to business contractions and other periods of adversity.
4. The company is actively engaged in research into new methods and procedures of improving and strengthening its products and creating new and better ways to serve its customers.
5. The company's profit margins have been sufficiently high to enable the firm to attract and keep competent people as well as to supply a

good portion of the firm's financial needs by internal rather than external means.

The pervasive theme throughout this list of specifications for the successful company is the idea of growth — growth in earnings, in sales, in pride on the part of the employee in being associated with an expanding, profitable company, in customer and consumer acceptance of company products, in new breakthroughs of scientific discoveries and product improvements, and finally, most important of all, growth in capital appreciation.

It would be a truism to state that colleges and universities need to concern themselves more than they have in the past with the risks and rewards of stocks that show promise of growing at a faster pace than the national economy. Many institutional fund managers do not feel comfortable in talking about the merits of a stock that sells at 30, 40 or 50 times the apparent earnings. Yet many of these situations are not only valid commitments but if the earnings growth is rapid enough, and if it can be sustained over a period of time, equities of this character ought to contribute more in the way of long-range intrinsic value to the account than the high dividend paying stocks.

Universities and colleges today are beset by many problems. Uppermost on the long list of administrative and trustee concerns is the very real problem of trying to balance the university budgetary accounts with some semblance of black ink. While growth stocks are most certainly not a panacea for all college ills, stocks chosen for endowment accounts in terms of the multiples of their probable future earnings will go a long way in helping to solve two troublesome areas of deep concern to every college official: (1) the pressures of inflation, and (2) the fact that college endowment funds need to grow at an accelerated pace if colleges are to find themselves in a strengthened position to serve some of the tremendous educational demands of the future.

Inflation

At the present time, the steep upward pressures on the price level, a phenomenon since the end of World War II, have temporarily subsided. With a greatly expanded postwar

industrial capacity (some of which is now operating below capacity), with some of the past "tightness" in the money supply yielding to the Federal Reserve Board's recessionary policy of credit ease, there are no real shortages in the supply of goods and services today. Thus, the classical description of inflation, "too many dollars chasing too few goods," seemingly does not hold true today. Yet, beneath the immediate surface are some economic and political forces, which, like a gathering storm, are capable of laying the groundwork for a fresh assault on the dollar.

Uppermost among inflation forces is deficit spending by the federal government. As a general rule, when federal outlays are not balanced by receipts, a deficit can occur. These deficits can come about in several ways, of which two can be mentioned:

1. **If the federal government willfully commits itself to expenditures on defense, farm programs or welfare proposals or any other activity greater than its revenues.**
2. **In times of business recessions, corporate and personal income tax receipts, sensitive to downward fluctuations in the economy, can drop below committed federal expenditures.**

In either event, if these governmental deficits are financed by the sale of government bonds to the nation's banking system, an enormous expansion in the money supply can take place. Upward pressures on the dollar can also come from other sources. Some economists believe that wage increments that exceed productivity increases can contribute to dollar inflation, while some other observers believe that inflation may be brought about by the existence in a major industry of a few large companies. These firms are alleged at times to pursue "administered" pricing policies, thus contributing to inflation.

Inflation Painful Reality

In any event, no matter how it arises, inflation is a painful reality to the college administrator. While the inclusion of growth stocks in the endowment account will not guarantee the abatement of inflationary pressures, it would seem to be a confession of defeatism and pursuit of a policy of being less-than-wise to ignore

the potentialities of inflation and the urgent necessity of creating more earning power, higher dividend paying ability, and greater enhancement of college capital by not including some dynamic stocks in the endowment account.

Endowment Expansion

The second reason why growth stocks deserve more attention by college administrators today is the practical and urgent necessity of increasing the nation's university endowment accounts in order to make certain that each individual institution will find itself in an enlarged financial position to meet some of the very necessary and critical demands society has seen fit to place upon the country's colleges.

While college and university officials know better than most that there are many ways to enlarge the endowment fund — bequests, special gifts, alumni contributions, foundation grants, and business support, to mention some of the most important — there can be no denying the fact that a wise stewardship and efficient investment management of every dollar entrusted to the college is one practical way to ensure the long-range fulfillment of the college's objectives. Conversely, the absence of the "prudent man" rule, the abridgement of common sense, the assumption of unwise investment risks, in short, the foolish management of college dollars — whether in petty cash or endowment funds — is almost certain to shrink the endowment account at a time when it should be growing, to inhibit gift giving on the part of sophisticated donors, to say nothing of jeopardizing the solvency of the institution as a going concern.

One way, and assuredly it is not the only way, to make certain that the institution will have some of the wherewithal to underwrite a portion of future educational costs is to re-examine the portfolio critically with a view of weeding out those stocks that show the least promise of participating in the full sweep of tomorrow's new development in research and scientific advances and replacing them with the stocks of those companies that exhibit in a distinct and forceful way the characteristics of the true "successful company" — the well chosen growth stock. ■

RECENTLY the Office of Statistical Information and Research of the American Council on Education decided to analyze trends in undergraduate college costs. In order to avoid the usual questionnaire approach, it was decided that a standard reference volume, that would contain cost data over a period of years, would be used. *American Universities and Colleges*, which has been published quadrennially since 1928 with the exception of 1944 by the American Council on Education, provided such a source. Descriptions of the individual institutions in most cases contained statements regarding tuition and fees and board and room costs.

Initially, attention was focused on large private and large public institutions. Subsequently, other classifications of institutions were added. Pos-

each of which granted more than 1400 bachelor degrees in 1958 (20 with usable data); *medium sized* institutions, each of which granted between 250 and 400 bachelor degrees in 1958 (14); small *publicly controlled* institutions (12) granting up to 900 bachelor degrees in 1958; *men's institutions* (22) listed in the 1932 edition as "colleges exclusively for men" and which have been substantially in this category during the period covered; *women's institutions* (20) selected as were the men's institutions. A few institutions fell into two categories. The total number of institutions studied was 96.

Attention was paid to all costs that were required of the student. For example, a college might not have a "tuition" charge but have some other fee, such as a registration fee, that was compulsory. "Tuition and fees" included tuition and other specifically listed fees such as "college," contingent, health, incidental, infirmary, medical, student activity, and "university" which were generally paid by all students. Excluded were: separately listed fees not required of all students, such as laboratory and gymnasium (or physical education); one-time fees, such as application, diploma, graduation, and matriculation, books, supplies, returnable deposits, and so forth. For each institution, all of the required fees were accumulated for each of the years covered by *American Universities and Colleges*.

For these same institutions, "room and board" charges were also recorded for the years indicated. "Total major costs" of attending the institution were defined then as a combination of these two, that is, "tuition and fees" and "room and board."

Table 1 shows, for each category of institution for each of the years studied, the average (mean) cost for: (1) tuition and fees, (2) room and board, and (3) the total of these two. It should be noted in interpreting these tables, however, that emphasis of the study was placed on *trends* rather than on exact costs. Variability in reporting occurred among institutions and over the years. Institution-by-institution analyses reduced the inconsistencies.

Table 2 shows the percentage changes during the intervals shown. Figure 1 shows the total percentage

Is Education Becoming Too Expensive?

A graphic study indicating
'fixed charges' to the student
are rapidly on the rise

sibly the method of selection is of no major interest; essentially the institutions were selected in a manner that would avoid any clear bias. In some instances, colleges could not be included in the study because they had not given cost data in one or more issues. In a few instances, where catalogs were readily available, supplementary data were obtained from the catalog. In some groupings (as men's colleges) all institutions for which data were available were studied.

The final categories studied were: large *privately controlled* institutions, each of which granted more than 1000 bachelor degrees in 1958 (usable data were found for only 14); large *publicly controlled* institutions,

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increase (last column of Table 2) in "tuition and fees" and in "room and board" costs between 1928 and 1960. To illustrate: In 14 large privately controlled institutions, the tuition and fees charged — as indicated in the 1960 publication — were 278 per cent above those charged in 1928; a comparable figure for room and board was 82 per cent.

As will be noted, increases in tuition and fees range from a low of 187 per cent for resident students in the 12 small publicly controlled institutions to a high of 354 per cent for the 14 medium sized privately controlled institutions. Room and board increases range from a low of 82 per cent in both the 22 men's institutions and the 14 large privately controlled institutions, to a high of 126 per cent for the 20 large publicly controlled institutions. It should be pointed out that these are percentage increases; a large percentage increase on a small initial charge could result in smaller actual dollar(s) cost to the student than would a small percentage increase on a large initial charge. This is easily noted in comparing Tables 1 and 2.

The problem of resident *versus* nonresident students (*i.e.* resident of the state *versus* those who live out of the state) arose almost exclusively in the publicly controlled institutions. While resident tuition fees were increasing 222 per cent in the large publicly controlled institutions, non-resident fees were increasing by 338 per cent. Similar figures for the small publicly controlled institutions were 187 per cent and 343 per cent. Again, perhaps, it should be emphasized that the precise amount of percentage increase is of much less significance than the trend of the increases.

In terms of costs to the parents, the accelerated rate is even more impressive when one determines the proportions of these increases for selected periods of time. Figure 2 expresses the total increase for the 32 year period covered as 100 per cent, and then shows, for the various classifications of institutions, the proportion of this total increase that occurred in the periods indicated. For example, in the 20 large publicly controlled institutions, of the total dollar increase between 1928 and 1960 for resident students, 39 per cent came in the period 1956-1960;

Table 1 — Average (Mean) Cost for: Tuition and Fees (T&F); Room and Board (R&B), and (Combined) Total Major (T)

Institutions ¹		Year								
		1928	1932	1936	1940	1944	1948	1952	1956	1960
Large Public (20) (Resident Students)	T&F	\$ 77	90	101	106	a d d e d	130	145	181	248
	R&B	328	344	307	355		495	585	637	740
	T	405	434	408	461		625	731	819	988
Small Public (12) (Resident Students)	T&F	86	105	116	129		157	183	202	247
	R&B ²	280	295	270	277		382	472	520	598
	T	366	400	385	406		539	655	722	846
Large Public (Non-Resident Students)	T&F	131	166	200	210		302	336	436	574
	R&B	328	344	307	355		495	585	640	742
	T	459	510	507	565		797	950	1,076	1,316
Small Public (Non-Resident Students)	T&F	123	152	170	201		267	319	388	545
	R&B ²	280	295	270	277		382	472	520	598
	T	403	447	440	478		650	791	908	1,143
Large Private (14)	T&F	267	313	320	332		442	553	712	1,008
	R&B	466	471	407	407		588	668	727	846
	T	733	784	727	739		1,031	1,220	1,439	1,855
Medium Private (14)	T&F	206	261	277	302	415	517	661	935	
	R&B	330	345	318	327	488	563	614	704	
	T	536	606	595	629	903	1,080	1,275	1,639	
Men's Colleges (22)	T&F	242	291	307	341	467	576	744	1,038	
	R&B	404	418	395	405	527	596	644	736	
	T	646	709	701	746	994	1,172	1,388	1,774	
Women's Colleges (20)	T&F	232	293	298	328	424	502	617	868	
	R&B	488	526	518	534	645	729	811	950	
	T	720	820	816	861	1,069	1,231	1,428	1,818	

¹Ninety-six institutions were studied. Three men's colleges and one women's college are also in the "medium private" group; two men's colleges are also in the "large private" group.

²The same for both resident and nonresident students.

Table 2 — Percentage Changes in: Tuition and Fees (T&F); Room and Board (R&B), and (Combined) Total Major (T)

Institutions ¹		Years							
		1928 to 1932	1932 to 1936	1936 to 1940	1940 to 1944*	1948 to 1952	1952 to 1956	1956 to 1960	1928 to 1960
Large Public (20) (Resident Students)	T&F	16.9	12.2	5.0	22.6	11.5	24.8	37.0	222
	R&B	4.9	-10.8	15.8	39.4	18.2	8.9	16.2	126
	T	7.2	- 6.0	13.0	35.6	17.0	12.0	20.6	166
Small Public (12) (Resident Students)	T&F	22.1	10.5	11.2	21.7	16.6	10.4	22.3	187
	R&B	5.4	- 8.5	2.6	37.9	23.6	10.2	15.0	114
	T	9.3	- 3.8	5.5	32.8	21.5	10.2	17.2	131
Large Public (Non-Resident Students)	T&F	26.7	20.5	5.0	43.8	11.3	29.8	31.7	338
	R&B	4.9	-10.8	15.6	39.4	18.2	9.4	15.9	126
	T	11.1	- 0.6	11.4	41.1	19.2	13.3	22.3	187
Small Public (Non-Resident Students)	T&F	23.6	11.8	18.2	32.8	19.5	21.6	40.5	343
	R&B	5.4	- 8.5	2.6	37.9	23.6	10.2	15.0	114
	T	10.9	- 1.6	8.6	36.0	21.7	14.8	25.9	184
Large Private (14)	T&F	17.2	2.2	3.8	33.1	25.1	28.8	41.6	278
	R&B	1.1	-13.6	0	44.5	13.6	8.8	16.4	82
	T	7.0	- 7.3	1.7	39.5	18.3	18.0	28.9	153
Medium Private (14)	T&F	26.7	6.1	9.0	37.4	24.6	27.9	41.5	354
	R&B	4.5	- 7.8	2.8	49.2	15.4	9.1	14.7	113
	T	13.1	- 1.8	5.7	43.6	19.6	18.1	28.5	206
Men's Colleges (22)	T&F	20.2	5.5	11.1	37.0	23.3	29.2	39.5	329
	R&B	3.5	- 5.5	2.5	30.1	13.1	8.1	14.3	82
	T	9.8	- 1.1	6.4	33.2	17.9	18.6	27.8	175
Women's Colleges (20)	T&F	26.3	1.7	10.1	29.3	18.4	22.9	40.7	274
	R&B	7.8	- 1.5	3.1	20.8	13.0	11.2	17.1	95
	T	13.9	- 0.5	5.5	24.2	15.2	16.0	27.3	152

*No data available for 1944.

¹Where there is a breakdown of fees by resident and nonresident students the same institutions were used.

Fig. 1 — Per Cent Increase in Tuition and Fees and in Board and Room, 1928-60

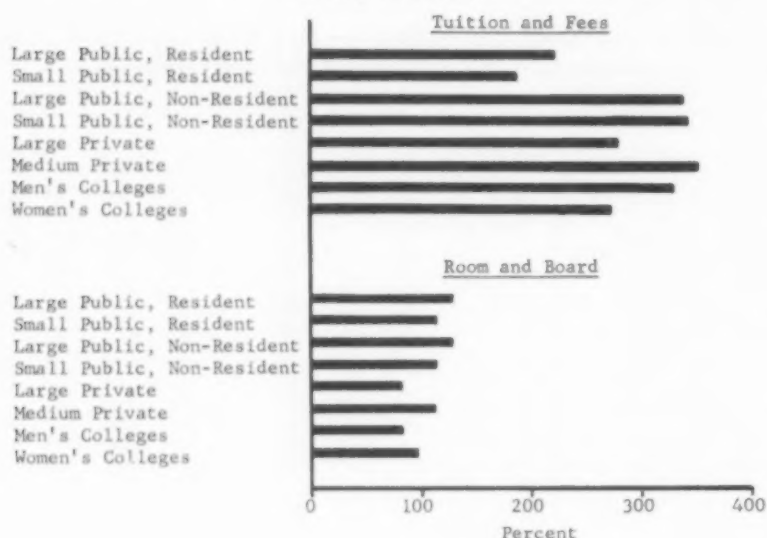
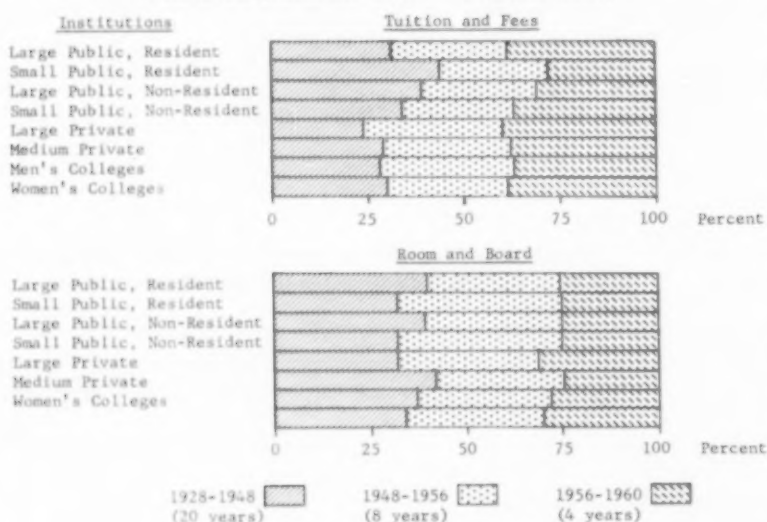


Fig. 2 — Proportion of Increase, 1928-60, Occurring Within Periods Indicated (Total Increase = 100 per Cent)



30 per cent in the eight years preceding that (1948-1956), and 31 per cent in the 20 years between 1928 and 1948. Similarly, although the total increase for nonresident students was substantially higher, 31 per cent of this total still came in the last four years.

As a rough approximation, one can say that of the total increase in tuition and fees between 1928 and 1960, one-third of the increase occurred in the last four years; one-third in the preceding eight years, and one-third in the preceding 20 years.

The increase in room and board charges over 1928 ranged from a low of 82 per cent to a high of 126 per cent. Again, very roughly, the amounts for the intervals indicated are still one-third for each of the periods, with a slightly lower part of this increase occurring in the last four years. However, as shown in Figure 1, the percentage increase over 1928 is not nearly as high for room and board as for tuition and fees.

An interesting relationship between tuition and fees and room and board

charges is seen in the fact that, in three of the four categories of private institutions, tuition and fees are now higher than room and board; and in the one exception there is strong suggestion that it will follow the pattern within a very short time. This is a reversal of a trend that existed for several years.

When one turns to total major costs, the increases range, for resident students only, from 131 per cent to 206 per cent. Again, generally one-third of the amount occurred in each of the year intervals aforementioned.

In the resident *versus* nonresident category, nonresident fees have increased substantially more than resident fees in the two groups of public institutions studied. For tuition and fees, the increases over 1928 in the two groups of public institutions were: for resident students, 222 per cent and 187 per cent; for nonresident, 338 per cent and 343 per cent. The percentage increase for nonresidents exceeds three of the four groups of private institutions. Room and board charges for public institutions show percentage increases that are higher than for any of the groups of private institutions.

Although there are differences among the institutional groupings, a general pattern is clear. Between 1928 and 1960, percentage increases in tuition and fees are roughly: for resident students in public institutions, around 200 per cent; for nonresidents in public institutions, around 340 per cent; for private institutions, around 300 per cent. Increases for room and board are more conservative, roughly about 110 per cent. Between one-third and one-fourth of the total amount of the 32 year increase for room and board occurred in the last four years; and for tuition and fees, roughly one-third of the total increase came in this period.

Obviously the total cost to the student will exceed charges for board, room, tuition and fees. Other costs, such as textbooks, might, if carefully analyzed, also show similar trends. However, since adequate data for such costs would be extremely difficult to obtain, the present study has been limited to the reported "fixed charges" of higher education to the student. For these charges, a clear acceleration of the rate of increase is evident. ■

You save time and trouble
when you . . .

Pay Student Workers With 'Scholar-Scrip'

Harvey Sherer

Administrative Assistant, University of Kentucky, Lexington

John E. Hills

Former Treasurer, Columbia College, Columbia, S.C.

ONE of the pleasures of working in the College Business Management Institute and in the graduate programs at the University of Kentucky is that you run across many clever ideas that business managers of colleges have developed across the country. Some of them are shrewd indeed. Here is one that John Hills, the business manager of Columbia College, Columbia, S.C., has devised that I think is effective.

Harvey Sherer Comments

One of the problems that I had when I was business manager of a small college was keeping track of student workers. Even more troublesome was getting the students, who had been given a grant against their tuition and board and room, to do the work they were supposed to do. The student might be an athlete and busy practicing, and consequently didn't have time to do his job of sweeping up the floors. Or, it might be a young lady who was very popular and simply didn't have time to put in the work that was supposed to be done at the library. There were lots of reasons, many of them sound, but nevertheless, the fact remains that it was a constant chore to get students to do work that they were supposed to do.

Another problem was getting professors and supervisors to make sure students did the work, and did it sat-

isfactorily. Some of the professors and supervisors had high standards, and few students could satisfy them. And, some had low standards almost any student could satisfy. Some students, when talking to classmates assigned to these supervisors, were likely to become discouraged.

In addition, students who were given a "workship" did not have anything to show for their work. Few colleges give cash for student work. The reason, based on experience, is that students frequently spent the money they earned rather than pay their college debts. Parents would then have to be called on for payment of the debt, and this was generally unsatisfactory. So now most colleges merely give credit.

To meet situations such as these, John Hills of Columbia College has devised what he calls "scholar-scrip." It is issued in various stamped amounts, has his stamped facsimile signature, is numbered and bound in a book. Called "The Workshop Record," the little book has places for the departmental supervisor's name, the semester involved, and the name of the student. The time worked and amount credited are on the cover.

There are some real advantages to this form: A memorandum control can be set up, and you always know how much you have out in scholar-scrip and there is no charge against the col-

lege until the student has *earned* it. If a student is inclined to be lazy or is unable to work, or to do the work he is supposed to do, then there is no charge against the college for the grant made to him. On the other hand, if a student is a good worker and puts in the hours early, and a job requires more hours, then the student can and should be paid extra.

John Hills Reports

One feature about the scholar-scrip is that it is subject to annual audit; and auditors do check the amount of scholar-scrip that we receive at the cashier's window against the special scholar-scrip receipt that is sufficiently different from regular receipts so that it doesn't cause confusion. It is kept in a book and serves as any other receipt would.

Now let's review exactly what happens when students indicate they need help:

Initially, information is provided all students concerning the workshop program at Columbia College and applications for such work are made available through the office of student welfare, which administers the program. The policy is established and awards made, however, by a student aid committee that handles all student aid, including workshops, scholarships and loans. The application is completed by the student and returned to the of-

fice of student welfare, where it is processed and turned over to the student aid committee for action.

After the application is considered and approved, the student is notified. The student, incidentally, has had to make a selection of choices of work available, indicating first choice, second choice, and so forth all the way through the entire list. Students understand that they must accept any work offered. However, an attempt is made to give them the job for which they are best suited and which they prefer. After the students are assigned the job, a notation is made on their account record indicating that they will receive a workshop in the stated amount.

The student aid committee has established the policy of fixing the amount of the workshop within certain limits. This provides a margin of error in computing the work that will be done over the whole semester. For example, it would not be practical to predict a girl would be able to perform a given number of hours down to the last minute. However, it is figured that an approximate number of hours would be earned. A maximum is set and the student is awarded a workshop that states the approximate number of hours involved during a particular semester. The student's account has such a notation on it and scholar-scrip vouchers are prepared for each student who has been assigned a workshop. The entire amount of the workshop is represented by vouchers contained in the booklet.

Thus, the last voucher in the book given to the students notifies them that they are no longer required to work during that semester.

We found supervisors tended to take advantage of students, and had them work more time than they were allotted by the student workshop of the student aid committee. Most students are willing to earn the extra money, even if it might be detrimental to their studies. The booklet was devised so that no supervisor could compensate a student beyond the amount contained in the book.

Each voucher carries this statement, which the supervisor must sign: "I certify that (name of the student) has satisfactorily performed — hours of assigned work entitling her to credit on her Columbia College account in the amount of \$——." This certificate limits the credit to that which has been duly authorized by the student aid committee. The supervisor is thus alerted to the situation and acknowledges the limits.

We found that supervisors and students sometimes engage in a little bit of juggling of the facts, and students don't always complete the amount of work for which they are given credit. This probably results from the fact that supervisors are lax in keeping track of what the students are doing and how often they work. Supervisors sometimes request students for work that is not actually done, and the supervisor then finds it difficult to keep the student busy. Rather than penalize the student for this lack of foresight,

the supervisor in the past usually authorized full credit on the student's account, although it had not been earned. While the new system does not guarantee that these things will not occur, we feel that requiring a signature on such a certificate is at least a deterrent to such a practice.

Another desirable feature in the use of scholar-scrip vouchers has been the tangible evidence that a student has performed such work satisfactorily. Also, students are able to show their parents and others voucher evidence that they earned a good portion of their own tuition. Heretofore, students earning part of their tuition probably did not realize it quite so much.

The bookkeeping involved in the situation is minor — a mere debit to the departmental accounts, and a credit to the student's individual account. On the ledger, the fact that it is credit for workshop time is indicated by symbols. At Columbia the symbol WR is used, meaning workshop receipt. All of our symbols are clearly reported in our statement to the parents. Thus the parents can easily understand what we've written. As a matter of fact, our statement to the parent is really a duplicate of our record (it is the original, our record is a carbon copy of the statement).

We require one-half a semester's payment at registration and the statements for the balance are sent out November 15 and April 15. All charges that are added following the mailing of the statement become immediately due and payable. ■





Modern covered disposal truck used to cart chemical laboratories' waste to city dumps.

In city colleges, disposal of chemical wastes can be a burdensome problem. This article gives pointers on. . .

How To Dispose of Chemical Wastes

David M. Sharefkin
Brooklyn College, Brooklyn, N.Y.

THE College of the City of New York consists of four liberal arts colleges. These are the City College, Hunter College, Brooklyn College, and Queens College.

Problems concerning disposal of chemical wastes from the city colleges' chemical laboratories are more complex than those found in colleges of smaller cities and towns. Municipal ordinances, fire department regulations, and air pollution control re-

strict the manner in which chemical wastes are stored or disposed of.

City College in upper Manhattan, Hunter College on Park Avenue, and Brooklyn College in Flatbush are all located in densely populated residential areas where it is impossible to burn chemical wastes. However, at Queens College, located at the far end of its borough, a chemical waste burner is in operation.

Chemical waste lines systems are designed by the architectural unit of the Board of Higher Education in

consultation with the chemistry department. Waste lines below the second story level are fed into a 1000 gallon dilution tank located in a sub-basement. Here the diluted effluent is pumped to the city sewer trunk line. Waste lines from laboratories above the second floor run directly to a city sewer connection because there is adequate dilution of the waste in its course.

Our students are taught early in their freshman year how to dilute acids and bases before pouring them

From a paper presented at the National Safety Higher Education Congress, Chicago, 1960.



Interior of ventilated and carbon-dioxide protected solvents storage vault.

into the sinks. They are also instructed how to dispose of organic waste liquids in marked waste bottles that are kept in a laboratory hood. Emphasis is placed on the hazards of pouring ethers and carbon disulfide residues in sinks and drains. The only incident I recall, in 25 years of laboratory operation, that involved the waste lines, was an accidental pouring of molten bath wax (a low melting point chlorinated hydrocarbon) directly into the waste lines of an organic laboratory. The molten wax solidified to form a plug in the waste line four stories below in the basement of the building. It took two days to clear the line but it justified our estimate that wastes would be adequately diluted in their passage from laboratories above the second floor.

For the disposal of organic liquid wastes, we provide waste bottles for each laboratory. These bottles are marked for carbon disulfide, ether, aromatic and petroleum hydrocarbons. Special attention is given to ethereal wastes. These bottles contain either coils of fine iron wire or a solution of sodium bisulfite to dissipate ether peroxides if they are present.

We make no attempt to recover ethers for reuse because of the hazards of explosion of ethers containing peroxides.

Collected organic liquid wastes are stored in 5 gallon steel drums in a special solvents vault. This vault is built underground at a distance of 50 feet from the science building. It contains an automatic carbon-dioxide fire extinguishing system and is well vented. A commercial solvent recovery firm is employed to remove the solvent wastes monthly.

Solid chemical wastes from the laboratories, except those that are pyrophoric, give us no problems. The college disposal truck carts them to either a city incinerator or landfill.

Our only pyrophoric waste problem is with sodium metal residues. These residues are destroyed by reaction with alcohol and the water soluble wastes are washed down the sink. We have little or no problems with white phosphorus simply because we do not issue it for student use.

Radioactive chemical wastes are now becoming part of our house-keeping schedule at the city colleges. So far our research people have used

only the radioactive compounds containing the short-lived phosphorus 32 (half-life 14 days). This is a low-level beta emitter. We store these wastes for four to six months in heavy walled glass bottles wrapped in aluminum foil. At the end of that time, if the radioactivity has fallen to the safe level specified by the Atomic Energy Commission, they are poured directly into the city sewer system.

Queens College, as mentioned, is the only one of the four city colleges that has a solvent burner for its organic wastes. The burner is also used to dispose of solid pyrophoric wastes. This solvent burner, of simple construction, consists of a vertically mounted cast concrete sewer pipe — about 4 feet above ground and 2 feet below ground. It has a burning grate and a drain in its concrete base. Waste solvent is gravity-fed from a storage drum into a compressed air jet burner. It can burn about 10 gallons of solvent per hour. With an excess of compressed air there is very little smoke. This burner will also handle solid pyrophoric and organic residues. It has been in use for more than 10 years with no problems reported in its operation.

Here are five recommendations for the disposal of laboratory wastes.

1. Water soluble wastes from laboratories such as acids, bases and salts should be run through a water dilution tank before they are emptied into city sewer lines.

2. Storage of chemical wastes should be limited to 5 gallon drums. These should be kept in a well ventilated solvents vault, which is protected by an automatic fire fighting system.

3. In areas where the services of commercial solvent recovery firms are not available, the use of a chemical solvent burner is recommended.

4. An inspection schedule of areas where chemicals are being held for disposal should be instituted. Chemical wastes, particularly ethers, should not be held for more than six months. Routine disposal procedures should be maintained.

5. Waste disposal problems can be held to a minimum with adequately trained laboratory personnel. Two years of college chemistry (inorganic and organic chemistry) should be the minimum educational background of laboratory assistants. ■



Can We Protect the College Name?

The courts uphold
the legality of 'Yale
Motor Inn,' 'Cornell Bread,'
and 'Vassar Chocolates'

T. E. Blackwell

Educational Management Consultant
Washington University, St. Louis

RECENTLY, Yale University requested an injunction to prevent the owners of a motor inn from using "Yale Motor Inn" as its designation. The trial court declined to grant the injunction and Yale appealed the decision. In March of 1960, the superior court of errors of Connecticut upheld the decision of the lower court.¹

The following are excerpts from the opinion of the upper court:

"No inflexible rule can be laid down as to what use of names will constitute unfair competition; this is a question of fact. The question to be determined is whether or not, as a matter of fact, the name is such as to cause confusion in the public mind as between the plaintiff's business and that of the defendant, resulting in injury to the plaintiff. The test is whether the public is likely to be deceived. . . . Whether the court will interfere in a particular case must

depend upon circumstances; the identity or similarity of the names; the identity of the business of the respective corporations, and the extent of the confusion which may be created or apprehended. . . . It is not sufficient that some person may *possibly* be misled, but the similarity must be such that any person, with such reasonable care and observation as the public generally is capable of using, and may be expected to exercise, would be likely to mistake one for the other.

"Upon the subordinate facts found by the trial court, its conclusion — that the evidence failed to show that the use of the name 'Yale' in the 'Yale Motor Inn, Inc.' would be likely to deceive the public or cause confusion in the public mind — cannot be disturbed."

By the adoption and use of a name and seal, a corporation acquires property rights therein, rights that the courts will protect, in much the same

¹Yale University v. Bennesson, 159 A. 2d 169 Conn. (1960).

'The court ruled that the similarity of names tended to mislead the public'

manner and for the same purpose as a trade-mark. Priority of use in a particular field is essential.

The proprietor of a business school in Philadelphia was forbidden by a state district court² in 1900 to use the name and title of "The University of Philadelphia" on the grounds that "letters, intended for the provost and faculty of the University of Pennsylvania, had been directed by persons residing in other states and countries to the University of Philadelphia." The court ruled that the similarity of names tended to mislead the public, and the University of Pennsylvania, having been established for many years, was entitled to protection under the common law relating to trade-marks.

New York Case

In 1921, F. Arthur Clawson filed in the office of the clerk in the county of New York the customary trade-mark certificate of his intention to conduct business under the name of "The Columbia Preparatory School." Shortly after the opening of his school, he was notified by the Columbia Grammar School that, by adopting a similar name for his school, he had created the erroneous impression among intending students and others that there was some connection between the two schools. When he declined to change the name, the Columbia Grammar School petitioned for an injunction.

According to evidence introduced at that time, the Columbia Grammar School had been established as the "Grammar School of Columbia College" in 1764 and that, although incorporated as an independent school

in 1907, it had continued to maintain a close relationship with the college of Columbia University.

The injunction was granted,³ and the following is an excerpt from the opinion of the court:

"The evidence in this case shows that similarity of names is not only apt to be misleading, but has in fact misled to such an extent that it can be safely said that the defendant is unfairly competing with the plaintiff."

Some years later, the courts of New York⁴ were again called upon to protect the name of "Columbia." According to Justice Townly: "The conclusion is irresistible that the defendants, in adopting the name 'Columbia Educational Institute,' did so with the deliberate design of conveying to the public the impression that they were identical or associated with the plaintiff. The right of the plaintiff to its name, 'Columbia University,' was expressly conferred by the legislature of 1784 and has been in constant use since that time. It has built up a great name and standing among educational institutions of the country, which name cannot be appropriated by the device resorted to by the defendants."

Although the courts have been prompt to protect an educational institution from unfair competition by another educational institution, they have not been so ready to protect the right of a college or university to the exclusive use of its name as against commercial exploitation thereof.

Vassar College, in 1912, attempted to restrain⁵ the Loose-Wiles Biscuit Company of Kansas City from mar-

keting its candy under the trade name of "Vassar Chocolates." In its petition for an injunction, the college made the following allegations: "... the packages containing that candy and the advertisements thereof employ the name of Vassar, a likeness of a young lady in scholastic garb and wearing a mortarboard hat, an imitation of the college pennant, a college yell, and an imitation of the college seal, with the words 'Vassar Chocolates' and 'Always Fresh' substituted for the words 'Vassar College' and 'Purity and Wisdom,' respectively. Complainant is thereby brought into public contempt and ridicule, and that, because thereof, its business is injured and its graduates and students humiliated."

Justifies Rejection

Judge Van Valkenburg justified his rejection of the petition of Vassar College for an injunction in the following words:

"The injurious effects, if any, of the advertisement complained of are speculative in the highest degree. They seem to me to be largely creations of fancy, due to supersensitiveness and apprehension. They are lodged rather in a feeling of distaste on the part of those interested in Vassar College for seeing its name and insignia, inferentially at least, linked with any commercial pursuit, rather than to any appreciable injury to its tangible property."

In 1955, a baking company succeeded in persuading a New York court⁶ to permit it to use the designation "Cornell Recipe Bread" for its product, upon condition that it eliminate the use of a scroll on its wrapper and in its advertising. The following portion of the opinion of Justice Bergan is pertinent to a consideration of the issues involved:

"Had Cornell firmly insisted that the baker should not use 'Cornell' at all in selling this bread evolved at the university, we would have had no great difficulty in sustaining the injunction in full ambit. But the university left open, or seemed to be leaving open, to the baker a limited use of the name 'Cornell' during the time when the baker was investing extensively in the commercial promotion of the product."

²The Commonwealth of Pennsylvania v. Banks, 9 Pa. Dist. 436 (1900).

³Columbia Grammar School v. Clawson, 120 Misc. 841, 200 N.Y. Supp. 768 (1923).

⁴Trustees of Columbia University v. Axenfeld, 136 Misc. 831, 241 N.Y. Supp. 4 (1930).

⁵Vassar College v. Loose-Wiles Biscuit Co., 197 Fed. 982 W.D.Mo. (1912).

⁶Cornell University v. Messing Bakeries, 285 App. Div. 490, 138 N.Y.S. 2d 280 (1955).



The computer above works directly from punched cards.



As many as 960 holes can be punched in each card.

'In the Cards'

Information compiled by machine keeps tab on 22,000 students



Printed sheets of reports, addresses, labels, even student directory and timetable copy for printer, come from machines.

SEMIANNUALLY, the University of Illinois Statistical Service Unit undertakes a marathon job. Clerks pull out drawer after drawer of $3\frac{3}{4}$ by $7\frac{1}{4}$ inch cards, each with information coded by little punch holes.

Sixteen hours later a half-dozen offices have detailed information about every one of the nearly 22,000 students on campus. Neatly typed on slips of paper, arranged alphabetically by students' names, are data about each one's class schedule, course, local and home address, parent's name, birth date, and other information.

When compared to pre-automation days, when this job was done by hand instead of machine, 16 hours is miraculous time. Then dozens of clerks spent days sorting slips on which students themselves had written the information.

Post-registration listing is only one of many jobs done with modern business machines and methods by this university unit, which has been studied by other universities across the country. In a year's time it uses 15 million of the little punched cards — familiar to the public through bills and checks.

Student records are handled from admission through graduation. Student directory listings are prepared for printing. So is the timetable of classes.

The university budget is prepared, accounts kept, checks made out, payrolls computed, tax records kept. Inventory, faculty load studies, many other records, statistics and projects are part of the unit's normal day.

In a second shift — 5 p.m. to 1 a.m. — the machines are used for statistical work on research. Projects range from traffic studies to atomic fallout, engineering to agriculture. Where complex computations are called for, an electronic computer is used. ■



Information from punched cards is automatically transferred to paper tape, which is then fed into the computer at high speed.

Four machines like this each can sort 1000 cards a minute.



A. R. Wildhagen

Assistant Director, Public Relations
University of Illinois, Urbana

Examining dozen cards used for information on student.



THE PROFESSOR'S RIGHT-HAND MAN...

...IS THE PURCHASING AGENT!

Harold W. Mutispaugh
Purchasing Agent
Rollins College, Winter Park, Fla.

ASIDE from the administrative dean there is probably no one on the administrative staff who is more closely associated with the professor's day-to-day activity than the purchasing agent. This is particularly true in the smaller colleges and universities.

The purchasing agent who is not fully aware of this opportunity to contribute to the educational program of his institution and of the responsibility that it entails is not getting the maximum pleasure and sense of accomplishment from his work.

The element that distinguishes educational purchasing from industrial purchasing is one reason why the best purchasing agent for a school is a man who has gained his experience in educational work rather than in general business. In industrial purchasing the end result is the cost of the finished product, while in educational purchasing the end result is quality of teaching. One's goal is to realize a profit, while the other's goal is to have a substantial part in helping to realize a successful educational program.

Measuring the success of the purchasing department is a project or process that involves many variables and is subject to fallacies that may result in misleading conclusions. Some people doubt that there is a practical method of rating the performance of the purchasing department.

For instance, it would be a fallacy to measure the efficiency of the department by comparing its cost of operation to a percentage of the total institutional purchases because this percentage can be lowered merely by paying higher prices for things bought. This basis would suggest operating efficiency, whereas the opposite might be true.

Correspondingly, when the cost per order is used as a unit of measure it is necessary to read between the lines. In making comparisons between years one should consider any changes in the program and any other extenuating circumstances before drawing conclusions.

Price and savings are also a questionable means of measuring performance because they usually ignore the element of value.

Sometimes the business office uses the wrong approach to the purchas-

ing function by assigning work that is not within the proper scope of purchasing to the department. The commonest error in this respect is to expect the purchasing agent to ride herd on the various departments to see that budgets are not overspent.

The organization of the business office should provide for centrally controlled purchasing that includes controls for regulating expenditures, but it should not put the purchasing agent in a position where he might appear to direct or dictate the educational program by control of its expenditures.

Department Head Responsible

The job of keeping within the budget rests between the business manager and the using departments, although the basic responsibility really rests with the department head in charge of the budget. Someone should check on the department head but this person should not be the purchasing agent. The purchasing agent's job is to spend money — wisely, of course — but to make the widest possible use of all the funds available. It is not suggested that he connive with the faculty to find ways of exceeding the budget, but neither should he be expected to serve as watchdog of the exchequer nor allowed to set himself up as a giver-of-favors if he unfortunately happens to be so inclined.

If an outside opinion were asked about the purchasing agent it might be logical to consult local merchants. Chances are the report would be favorable or even highly complimentary if the purchasing agent has good business judgment, issues clear and complete specifications, makes awards fairly to the best competitive bidder, and is conscientious about giving the local merchants an opportunity to compete for the school's business. Such a rating indicates good purchasing procedure resulting in good public relations and is to be sought after, but it is not a sufficient gauge of the worth of the purchasing agent.

It has been said that the real worth of the purchasing agent is involved in those attributes of imagination and resourcefulness that are outside any definition or measurement.

The purchasing agent is in the best position to recognize the full poten-

tial of his function and its service to his institution, but his analysis of his own success would tend to be influenced by his own personal limitations. His lack of knowledge of educational philosophy would be one of the more serious limitations.

Understanding the objectives of one's institution and the educational background and atmosphere in which we all work is of the utmost importance in recognizing his opportunity to give the most service.

This brings us to the person who is perhaps in the best position of all to judge the real worth of the purchasing agent. He is the individual professor who depends upon the purchasing agent for the educational tools used in his day-to-day contact with the students — tools that are becoming more and more useful and necessary in teaching.

Mark Hopkins reduced the educational process to its simplest terms when he referred to it as a log with a teacher on one end and a pupil on the other. Reducing educational purchasing to equally simple terms would be to describe it as providing the log which would make it possible for the professor to do his most productive and inspiring teaching. If he can do his best teaching on a hickory log rather than on a pine log, then the purchasing agent should find the best hickory log available, at the most advantageous price, and have it on hand when the first class begins.

Rendering Service Real Function

The real function of the purchasing department is rendering service that will implement the objectives and improve the performance of the institution. Since the professor occupies the end of the log, he is in a good position to judge the amount and the quality of help given by the purchasing department. The purchasing agent may be a hero today because he was able to get a rush delivery on a \$800 microscope (which the biology department did not request until the eleventh hour). The fact that he was able to save the school a hunk of money on this factory price controlled item by digging up an old mike to trade in was considered incidental. Yesterday his high point was in being able to get a 60 cent block of dry ice on emergency notice to complete an important ex-

periment in the chemistry department. These minor successes had no relation to the amount of money spent. Oddly enough, the service rendered was considered, at the moment, to be as important by the one professor as by the other. In an analysis of the purchasing department it is impractical, if not impossible, to measure the many such services that a good purchasing agent can render to the faculty.

The purchasing agent frees the faculty for teaching and for research and his success in doing this grows with experience on the job. It is an accepted fact that anyone can buy — and in some schools practically everyone does — but to buy well for an educational institution requires a good general education, business acumen, natural honesty, plus years of actual experience. The average school purchasing agent has these qualifications and is doing a good job but his potential of success and usefulness hinges on his willingness to cooperate with the individual professor and to get the faculty's point of view.

Teaching Main Interest

The professor's main interest is in teaching and it seems sometimes that the better teacher he is the less time and thought he gives to the incidental details involved in the operation of the business office. One of his besetting shortcomings is his seeming indifference to the time element involved in acquiring even his own educational tools. So many of his needs have to be handled on a day-before-yesterday basis that it behooves the alert purchasing agent to make an effort to help the faculty to anticipate those needs, at least the periodical or repeat items.

The relationship between the faculty and the purchasing department should be such that the professor feels sure that the purchasing agent will do all in his power to supply the need on time. This understanding can be fostered by the purchasing agent getting out of his office as much as possible to visit the various departments. This way he can learn firsthand how past purchases have worked out, what future requirements may be, and especially about what the departments and their faculties are trying to do.

(Continued on Page 50)

**'The purchasing agent should also supply
information that may not be specifically
requested by the professor'**

(Continued From Page 49)

The more the purchasing agent knows about the work of the various departments, the better position he is in to correlate their needs in respect to quantity buying, scheduling of deliveries, and use of surplus equipment. The using department is in the best position to anticipate its requirements and to give specifications, but if the purchasing agent knows how an item is to be used, he is able to give a more intelligent appraisal of the specifications. In cases where additional negotiations are required, it is a great timesaver (and face-saver) for the purchasing agent to be able to ask or answer questions with the supplier about specific details that may need to be cleared up before making the purchase.

A knowledge of the intended use of an item is also useful to the purchasing agent who is dealing with a requisitioner who demands a particular brand of item when the purchasing agent is reasonably sure that it is not the best item to buy. The standard of quality should be a joint decision, but if the professor will consider no other make, then the best thing to do is to get it for him for it stands to reason that anything else would be a handicap in his teaching. While giving in to such a whim, the wise purchasing agent continues to search for a way to challenge the professor to try or at least experiment with other brands to test their relative worth.

It is only natural for the purchasing agent to lose patience with the professor who seems unable to state his wants clearly or who may balk at complying with the routine business procedure. On closer analysis the purchasing agent may find that the professor's seeming difficulty in describing his want is due partly to the purchasing agent's own ignorance of the item or of the science involved. He should give the professor the benefit of every doubt by remembering

that the faculty is hired for its ability to teach and that any shortcoming in its business office relations is the natural result of concentration on the more important function of teaching.

These qualities of the professor need to be appreciated by the purchasing agent in order to develop the true spirit of service. The assistance rendered to the faculty is limited only by the ingenuity and willingness and strength of the purchasing agent. The spirit is exemplified by the greeting, "Good morning, what can I do for you?" The purchasing agent is ready for any request and by his manner gives each faculty member the feeling that the need will have his full and prompt attention. This problem of priority and scheduling of requests on a busy day is one of the most perplexing ones to the purchasing agent for it requires the wisdom of a Solomon, the luck of the Irish, and the energy of a dynamo to deliver as requested.

Much of the work done by the willing type of purchasing agent may not even involve a current need as he has access to sources of information that can help departments to solve many of their problems. This includes letter writing for data, supplying catalog details, visiting suppliers, consulting salesmen, returning goods for repair, and many other services that can save the time and energy of the faculty for more important work. The purchasing agent should also supply information that may not be specifically requested by the professor, such as data on new or substitute products, labor saving equipment, and new or improved methods.

The receiving of goods ordered is one phase of the procurement process on which there is a wide difference of opinion as to how it should be handled. It is not necessarily a shirking of his duty for the purchasing agent to have this done by the using department for it is better

equipped to judge quality and conformance with specifications. This is the prevailing method in most small schools where shipments are made direct to the location of the using department. One fault with this method is that the faculty member involved is often too busy to open the box for prompt inspection or to process the invoice.

If the institution can afford a central receiving point which is manned by qualified personnel, an additional service is made available to all departments. With central receiving the purchasing agent can and should give the additional service of maintaining a tickler file on deliveries. The using department is capable of following up its own deliveries but it is much more efficient for this to be done by the purchasing department.

If the purchasing department can be expanded to include a central stores, it increases its ability to supply small needs more promptly and more economically. The small school should first investigate the cost of stores operation compared with the economies and increased service which the stores will provide.

The purchasing agent's file on past purchases can serve as a mine of information to the faculty and department heads. The system should permit him to supply, on demand, such information as cost, source of supply, specifications and other obscure details that might be needed from time to time by anyone. To be able to supply such a service will strengthen the faculty's feeling of dependence upon the purchasing department. The purchasing agent will be compensated for his extra work by the knowledge that he had an important part in filling the need.

If the purchasing agent has a professional attitude toward his job he can be trusted to measure his own success by the satisfaction gained from serving others. He should be the first to realize that he cannot measure his own success by praise from the people served because professors are seekers of perfection and are inclined to take for granted the best service the purchasing agent can give. Nevertheless the purchasing agent knows when he is accomplishing his real purpose by making a definite contribution to the educational program through service to the faculty. ■

2

Ways To Up Union Income

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Wisconsin Memorial Union
University of Wisconsin, Madison

THE college union that has sound financial status can best serve the university's educational program.

Two methods by which the income of a campus center can be stepped up will be discussed. Both must be carried on continuously and by all of the staff, not just by the director or his assistant. Neither method is new.

(Continued on Page 52)

'Profit or operating surplus is

First is a constant review of existing operations. A union director may well ask himself these questions:

When was the last time you reviewed your purchasing program? Have you inquired recently about an institute for purchasing agents on the campus or on a near-by campus? Industry is constantly looking for better ways to control and improve buying methods, and you can ill afford not to do the same. Can you combine the buying of some items with purchases being made by other college departments to reduce costs? Can you buy in large quantity lots and use storage space to save money? Have you really tried to buy at the right time of year for the best price? Have you made use of trade magazines in determining how and when to buy? Have you and the food staff director recently reviewed purchasing policies?

Could Outsider Do Better?

Another idea in reviewing existing operations is to make an examination of your facility and its operations to see whether you are carrying on certain activities that an outside firm could handle more effectively. For example, an outside concern might process your laundry more cheaply. Perhaps it would be better to let an outside firm handle all vending machine operations? It might prove less expensive to turn to Manpower, Inc. or Girl Friday for special or emergency employees. The cost of buying ready-

made chicken pot pies might be compared with making them in your own kitchens.

As union director you need to keep up with what is new in equipment. Generally speaking, money spent for new equipment will pay for itself many times over. Everything from electric can openers and extrawide dust mops to automatic pot and pan washers should be examined to see if they can help reduce costs. Don't merely replace what you had before. See if there isn't something that will do the task better. When you see a new item on the market, even though it is expensive, consider that it could replace a machine you are now using and, by a little rearranging of schedules or work load, do other jobs too.

How carefully are you watching wage costs? Spot studies two or three times a year can be amazingly revealing. Are your supervisors actually scheduling help in relation to the volume of business? You may have the usual quota of employees on duty Thursday noon although your records show that the volume is lowest at that time. Do you have an organization chart that includes everyone — not just the supervisory staff? Do you always replace an employee when a vacancy occurs, or do you review the operation with the supervisor to see if the new equipment bought this year makes it logical to add student help rather than a full-time employee?

Keep your staff up to date on new trends and ideas in their special fields. When did you last send your accountant to a specialized program? Have the supervisors attended any

From a paper presented at the Association of College Unions Conference, Bloomington, Ind., 1960.

a necessity for sound union operation'

supervisory training sessions? Has the food staff (not just your food director) gone to a restaurant show lately to pick up ideas? Has the maintenance staff had any recent demonstrations of how-to-do-it technics? Many suppliers are ready and waiting with good programs of this sort. All you have to do is give their representatives time to present them. Through such means ideas will start flowing in from the staff.

Another major point is long-range planning for remodeling. In the food service industry, it pays to remodel about every 10 years. Business jumps up the minute a "new" unit opens even if it has had only a face lifting.

Remodeling should be a regular part of daily planning. If a part of the regular program is the decision to keep your operation as modern as possible, then you will be looked upon as a leader on the campus, along with the other outstanding department heads of your school. Too often the union director is content merely to maintain his operation. If you are to keep up or to set the pace for the American student body, you will have to plan for — and this also includes the financing of — major remodeling and building improvement programs. This includes the remodeling of games areas and service counters too. Also, as part of your daily operation you must consider the financing of major remodeling.

The second principle for stepping up income is the bringing in of new ideas of the "one-shot" variety to add to existing programs and services.

In programing, do you produce

income by taking advantage of campus events with which you are only partly associated? One university cleared more than \$1000 in three days just by sponsoring dances during the state high school basketball tournament. Other tournaments offer the same opportunity.

Have you reviewed existing programs to see if they can't increase revenue? For instance, one union placed its movie program on a continuous basis, charged for it, and is now grossing \$26,000 a year. It also added "Films for Finals" during final examination week, and this paid off handsomely.

Machines for Profit

Another method of increasing income is the use of machines for profit — juke boxes, vending machines, laundry equipment, and the like. Cooperating with the dean of women's office so that girls could have their pictures taken for rushing, one union installed photographic machines and cleared \$175. Portable coffee machines at strategic locations and functions also can be highly profitable.

Dances can be made profitable if they are combined with a concert, either before the dance or by having a two-day stand with a concert one evening and a dance the next. Carnivals and festivals can be money makers. Selling foreign foods and gift items made in foreign countries at a "trade fair" is often highly successful. At one such function everything was marked up a straight 100 per cent, and still the merchandise sold like hot cakes. Other ideas that have been

successful and profitable in the programing area have been "coffee houses," breakfasts after a big dance, and programs sponsored by the union but put on at other parts of the campus.

One other suggestion: Don't be afraid to charge a fee for a program. It is surprising how many people consider a lecture or concert more worth while if they have to pay for it. The fee usually increases attendance; obviously it will cut costs.

On the service side there are many, many ideas you can try out. Special food promotions, such as taking advantage of a current food fad, can be successful. For instance, if pizza is popular on campus, have you tried a Sunday night pizza special?

Another idea is to push your catering department to handle special parties in the building and outside. Have you ever thought of serving food to National Guard units going to and from camps in the summer? How about box lunches in the summer, or a "take home" food counter where dining customers can buy their favorite pastries, cakes and dressings? Have you tried to promote your food service by direct mail to faculty homes? Colorful flyers noting union services available can build up a steady, solid clientele.

Remember, profit — or operating surplus — is a necessity for sound union operation. If operating surplus is a regular thing, planned for and accepted as a regular part of everyday operation, your union will be better able to play its proper role in the university's educational program. ■

**How the University of Michigan
increased efficiency
by using . . .**

Radio Controlled Personnel



Employee checks paging network.



Buttons activate receivers of maintenance men.

Foreman gets message over pager.



Maintenance electrician carries pager on belt.





Harry Zemke has pager attached to coveralls.

NO MATTER where he is on the 1300 acre campus of the University of Michigan, when a key plant man is needed right away, he is paged.

Last summer, the university installed a personal radio paging system that enables it to send voice messages in a few seconds to any member of the plant staff. Furthermore, the system controls the messages so that they are received only by the person intended to hear them. The system provides the range to reach our men regardless of their location on the campus — somewhere on the grounds 4 miles away, in a building, the basement, an elevator.

Test System Originally

Originally, the paging network was a test system. The equipment wasn't introduced to the public by the manufacturer until a few months after the University of Michigan system was put into operation. A test system no longer, however, the university has just received an additional 20 pagers to supplement the initial installation of 15, and 10 more units are on order.

Compact radio pagers have been assigned to persons in the electrical, building services, plumbing, construction and grounds maintenance sections. The units are carried by key men — foremen, group heads, and maintenance men, including electricians, elevator and refrigeration repairmen.

In addition, the health physicist carries a pager, and two of the pocket units have been assigned to the radiological service group.

The new radio paging system is utilized in numerous ways in each of

the sections anywhere and everywhere on the campus. In a sense, the university is a "city" within a city. Located in Ann Arbor, it has more than 20,000 students on the main campus, which spans 1356 acres. There are nearly 150 buildings to maintain in addition to the sprawling grounds.

Important to Research

One of the most vital uses of the paging system involves the university's research and experimental activities. A prolonged power failure in the middle of such an experiment could destroy years of intensified effort. It is imperative, should a failure occur, to contact the proper maintenance man right away.

As soon as the failure is detected, a phone call is placed to the communications dispatcher. Using the proper code, he contacts the electrician designated to handle the assignment.

On his pager, which can be carried clipped on his belt or in a pocket, the electrician hears a tone. The urgent voice message follows.

This man is the only one to hear the message. The rest of the plant people are not alerted to the emergency.

The new paging system is used to contact the grounds maintenance staff. A crew might be out somewhere on the campus planting trees when a special shipment of material comes in that must be unloaded immediately. The dispatcher sends the crew on the more important assignment by relaying the order to the foreman via his pager.

The system is used to locate construction people to route them from job to job. The plumbing staff is lo-

cated instantaneously by the system when there is a vital mechanical problem.

Dispatching for the building services section is a separate operation. At present, 14 building supervisors carry the pocket pagers. These are men who are completely familiar with each building within their jurisdiction.

Working day and night shifts, these men are ready to take immediate steps in any emergency. For example, should there be a water line break in a building, the supervisor in charge of that building will be contacted on his pager to shut off the proper valve. With perhaps six or eight buildings under his watch, the paging system is invaluable in locating the supervisor who might be in any of "his" buildings.

It sometimes happens that one of the approximately 175 elevators on campus becomes inoperable with persons aboard. With elevator maintenance men carrying pagers, it is easy to contact one in seconds and correct the situation.

The antenna for the radio paging system is installed atop the university's Burton Memorial Tower. Each of the two dispatching points consists of a control console and microphone. Tone generating equipment permits selective calling of staff people.

The paging system is part of a comprehensive radio communications network. The University of Michigan also has a two-way radio system that includes mobile radios in vehicles used to transport men and to route the electrical service staff. Two portable two-way units are used for communications on jobs where vehicles are unable to go. ■

North Carolina architects
helped relieve two urgent problems
when they designed the . . .

'Classroom in the Round'

J. G. Vann

Business Manager, North Carolina State College, Raleigh

A "WELL rounded" education will be a literal reality for students at North Carolina State College in the near future.

Construction is now under way on a \$2 million circular classroom building on the college campus at Raleigh, N.C. The structure, 206 feet in diameter, will accommodate up to 4500 students at one time.

The building's unique design was evolved from efforts to relieve college administrators of two of their most pressing and urgent problems — expanding enrollment and limited budgets.

Studies by several educational and research groups and experimental application have pointed more and more to lecture instruction by superior teachers to large groups, with supplemental seminar, laboratory and student participation study supervised by junior instructors and graduate assistants.

Experience has indicated that instruction is hampered when groups

of more than 60 to 75 are seated in rooms with level floors, as those seated at the rear find it an effort to keep up with the instruction. A more ideal arrangement is the "theater" type of room with sloping floors and walls that converge toward the front.

In conventional classroom construction, the handling of general circulation is awkward for this type of floor and wall design and necessitates prohibitively high floor space for corridors.

North Carolina's new building was designed primarily for the "theater" type of classroom for large-group instruction. Classroom floors slope gradually toward an inner ring, where mechanical and restroom facilities are located. In this area, a ramp provides for mass movement of students between classes.

Each student seat has a good view of the chalkboard or lecture area, and the distance from the farthest seat is 40 feet. The capacity of the average large classroom is 200.

The circular construction provides a maximum amount of instructional area with a minimum of total floor area. The square foot cost is higher than for conventional construction; however, to provide the same amount of usable area in a more conventionally shaped structure, the total building areas would be considerably larger, and the cost per student would be as high or higher.

The "classroom in the round" provides North Carolina State College a maximum in teaching facilities for a minimum of area, land having become a critical problem at the college.

All schools of the college have classrooms in the building. The primary provision, though, is for those courses that employ lecture instruction more advantageously. Some of the instructional space has been subdivided into smaller classrooms to provide temporarily for a shortage of classrooms for groups of 40 to 50. The partitions for these spaces are of a nonpermanent nature, and these rooms will be converted later into the "theater" type when additional smaller classroom space is made available.

The floor construction is similar in profile to a shallow soup plate, with a flat circumferential rim, a gently sloping area directly inside the rim, and a flat inner circle. Along the flat periphery are located offices of various related departments. At the outer portion of the floor area, the radial lines between spaces approach parallel, thus the offices are more nearly rectangular. Moreover, the placing of offices at the outer position provides windows for these rooms.



Architect's model of the completed, round classroom building.

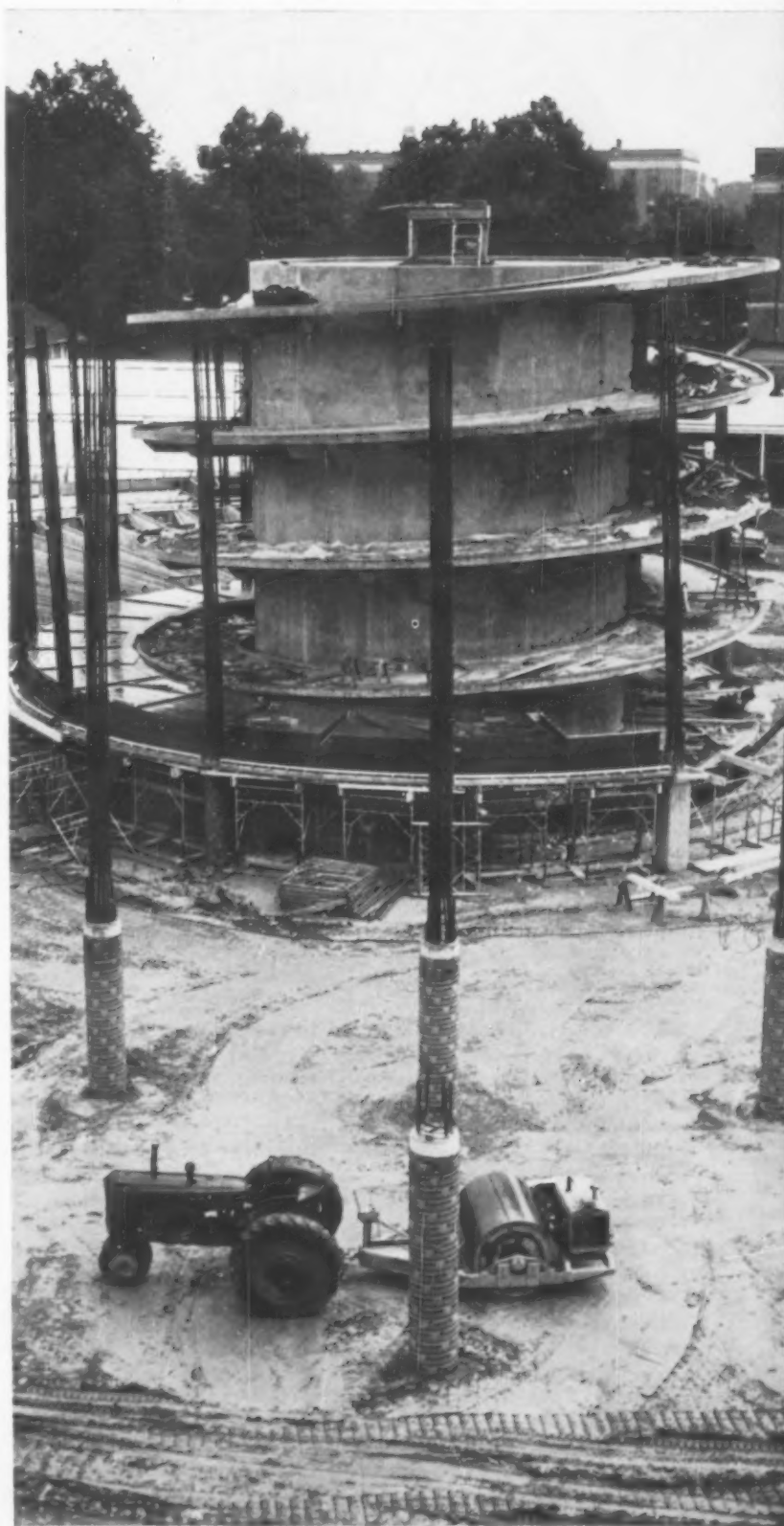
Photograph shows the continuous ramp that "spirals from the ground floor upward to connect at three classroom floor levels."

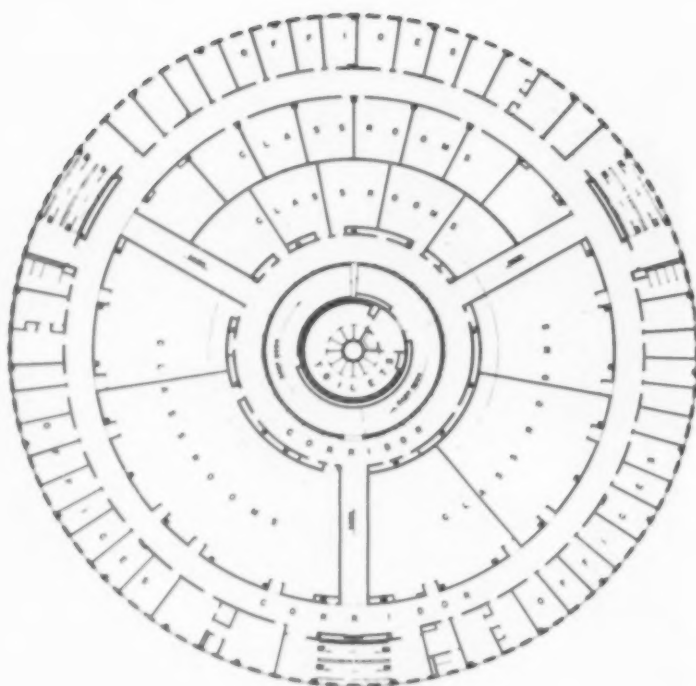
Immediately inside the office ring is a continuous corridor which provides access to the outer walls of the classrooms. Classroom floors slope 2 feet in the 40 foot depth to an inner circular corridor. The inner and outer corridors are connected by cross-corridors, which trisect the classroom space at 120 degree intervals.

Inside the inner corridor is a continuous ramp that spirals from the ground floor upward to connect at the three classroom floor levels and the four toilet levels located inside the ramp. The ramp provides for mass movement of students and further allows for a gradual climb as compared to the steeper path of the stairways, located at the outside rim at the three points where the cross-corridors join the outer corridor.

At the top level of the inner core, an open area serves as a display space for exhibitions of student interest. This area is used also as a lounge and study space. Covering the inner area is a monitor with sky-domes. The monitor illuminates the display space and provides natural lighting for the ramp, which is separated from the inner core containing the toilets by a 2 foot shaftway that allows the monitor light to penetrate the ramp area.

Therefore, entrance and exit may be made by the inner ramp or the outer stairs. Since the student occupancy approaches 4500, rapid entrance and exit are essential. The classroom building is located near the geographic center of the academic campus and is easily accessible to students of all schools. As class schedules (in many instances) are quite tight, a minimum time is avail-





TYPICAL FLOOR
SCALE 1/4" = 1'-0"

able for student travel from class to class. Because the building is on "stilts," there is easy access to the 12 foot wide ramp at the center and the three periphery stairways. The elevation of the building also prevents clogging of the radial cross-corridors, a situation that would exist if exit or entrance from the outer wall of the first floor were necessary.

The sheltered space beneath the first floor permits a protected space for students as well as allowing rapid crowd dispersal. Benches in this sheltered space provide study space for students with class vacancies, and thought is now being given to snack bar facilities.

The building framing is reinforced concrete with poured-in-place circular beams supporting prestressed concrete joists. The exterior wall covering is limestone, and interior walls are painted concrete masonry, except the radial divider walls between classrooms. These are gypsum board on metal studs which offer greater sound insulation, and they can be moved as conditions direct, reusing the steel studs.

One of the most interesting aspects of the construction — and a most important cost factor — is that, with the exception of materials with an in-

herent plasticity (concrete, plaster and the like), all materials are of standard shape and size. Construction has been so designed that conventional doors, windows, stone panels, masonry block, precast joists, and so forth are those normally employed in conventional building; and there are no elements requiring special tools for manufacture, fabrication or erection.

The building has year-round air conditioning. Steam from the campus distribution system is converted to hot water, which is pumped to air-handling units for the individual zones. The same piping and coils are utilized for hot water and for chilled water, the latter produced by steam absorption. As the campus power plant operates all year, summer steam is more economical than electricity.

The air conditioning system provides for up to the equivalent of 100 per cent outside air by the use of carbon filters. As the air-handling units for the classroom zones are economically located in the inner portion of the building, an actual 100 per cent quantity would have required considerably larger ducts from the outside to these units.

As the majority of the lighting is fluorescent, the electrical system is

277/480 volts, wye, with dry-type 120/208 volts, wye, transformers for receptacle and incandescent circuits.

In the classroom area, suspended ceilings are omitted. Lighting fixtures are 2 foot by 8 foot units suspended immediately below the exposed piping, conduit and ductwork. All surfaces above the fixtures are painted a dark color to produce a visual ceiling at the level of the bottom of the lighting fixtures.

This arrangement not only allows easy maintenance and repair access to the mechanical services but allows future extensions without entering a closed ceiling space. Moreover, items such as special television, photographic and display lighting, and ceiling-hung projectors may be installed in the ceiling area.

As visual aids are increasingly employed for large-group instruction, television conduit, projector outlets, and other similar facilities have been provided in the overhead space. Since all classrooms are within the building interior, they are lighted artificially; and there is no need for black-out shades or blinds for slides, motion pictures, or closed-circuit television.

The building has an elevator for limited use by the staff and handicapped students. The slope and width of the ramp are such that a fork-lift truck can negotiate furniture moving with ease.

The principal mechanical components are at the lower portion of the central core. The main electrical service, chilling apparatus, circulation pumps, and similar equipment are contained in this space. The main air conditioning and plumbing lines are located in a cylindrical pipe space at the exact center of the building. This space also provides direct access for extension of mechanical services to the center of each floor.

The three floors of classroom space are so built that a fourth floor may be added. This addition would increase the capacity to nearly 6000 students.

In memory of a former chancellor of North Carolina State College, the late Col. John W. Harrelson, the new classroom building has been named Harrelson Hall. Architects and engineers for the building are Holloway-Reeves and Associates of Raleigh, with Edward Waugh as consultant. ■

The Shortcomings of Administration

A serious probe into
the seldom realized area
of administrative and
management deficiency

E. J. Bofferding

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IN THE institutions of higher education, it is the president who is held responsible for seeing that all business, student and operating services and all auxiliary enterprises are effective in their support of teaching and research programs. It is his responsibility to see that financial resources will not be diverted unnecessarily from the academic programs which are the chief reasons for the institution to exist.

With this frame of reference in mind, I will touch upon the various patterns of administrative deficiencies commonly found in such institutions. Not all of these deficiencies are found in any one institution. However, all too frequently so many of them are found to exist in a single institution that we can hardly be complacent regarding the general level or quality of administration.

Patterns of Deficiencies

In outlining these common administrative and management deficiencies, I will start with the top-governing structure, the board of trustees, and work downward in the administrative hierarchy.

One of the most commonly encountered administrative weaknesses is that the board of trustees does not have a clear picture of its role and,

hence, is not able to operate effectively in areas where it can make the most significant contribution. Governing boards of our colleges and universities are preponderantly made up of business executives. They are used to sitting on the boards of large corporations, for which they have been chosen because of their management skills. They are experienced financiers, lawyers, bankers and production managers, and they bring valuable specialized knowledge to the corporate task.

When these same eminent business executives sit on the governing boards of colleges and universities, however, they find that many of their skills are inapplicable. Rather than operating at a policy level where they can make a contribution, they frequently become either rubber stamps for the president or, even worse, meddle in administrative matters, oftentimes working around the president rather than through him. The over-all role of such a board, like that of a board of directors of a commercial enterprise, is proper policy direction and control.

If the governing boards fail to exercise policy control, and normally lack any effective criteria for measuring the quality of administration, we can expect to encounter many more deficiencies in administrative practices below the board level. This basic lack in effectiveness of the govern-

ing board is really an administrative deficiency, not a failure of the board as such.

Policy Making and Control

The weaknesses found in policy making and policy control are second only in importance to those concerning the role of the governing body. Far too often, the administration of a college or a university has not developed in its top supervisors a clear sense of responsibility for policy making, nor has it developed within the administrative structure a keen sense of operating under proper policy control.

If basic control policies do not exist, this is chiefly a defect in administration. A governing board cannot be expected to develop the policies that it should adopt as control measures over the operation of the institution. All it can do is lend its judgment to the policies that have been developed for it by the administration and brought to it for consideration and adoption.

One of the major weaknesses in good management, therefore, involves the failure to instill in the administration a clear responsibility for policy development. This weakness is fundamental and widespread. It is hard sometimes to understand why colleges and universities have so often failed to adopt a basic tenet of administration that has been commonplace in

Presented at the Preschool Conference of the University of Delaware Administrative Group, Newark, 1960.

commercial business administration for generations.

President's Leadership Role

Just as boards of trustees often fail to recognize their proper role in the governing structure of colleges and universities, so also do presidents frequently overlook their role of administrative leadership. Presidents are normally picked for their educational achievements. However, they often are notably lacking in administrative experience and, as a consequence, often fail to recognize the matters in which they are responsible for exerting leadership. The president's attitude may range from a complete abdication of administrative responsibility to a bare toleration of the business enterprises.

Failure to exercise leadership is unquestionably a major factor influencing the quality of administration in institutions of higher education. In a large university, the president is responsible for the employment and activities of thousands of people. He is responsible for planning and controlling expenditures amounting to millions of dollars annually. He is responsible for planning the effective use of physical plant valued at many millions. He must play a prominent part in seeing that there will be continuous availability of needed resources. The scope and the complexities of these responsibilities are enough to test the managerial skills of even the most experienced administrator. To attain the educational objectives of the institution, the president must manage people, plant and money.

Planning and Organization

The increase in enrollments has been discussed so frequently that the fact of the coming tidal wave of students is fully accepted in all quarters. However, how often have institutions prepared themselves for meeting this challenge? Although planning is the activity that sets the framework for all other basic operations, it is one of the most neglected areas of management.

Most institutions just grow. Often this growth is achieved mainly by balancing a number of internal pressures exerted by strong individuals in various units, and is thus essentially a compromise rather than a plan.

Not only is there frequently not a basic academic plan, but often there are not even enrollment projections to show the basic problem year by year with which the institution must cope. Seldom are such projections used in the planning of facilities needed, or of the necessary financing.

The remedy is not a restatement of the platitudes so frequently found in college catalogs, but penetrating analytical thought regarding the clientele to be served, the educational programs to be offered, relative emphasis to be placed on teaching and research, the methods and character of instruction, and the size projected for the institution in the future. These determinations should then be translated into the physical facilities and financing needed to carry out the programs planned and projected.

Management of Resources

Organization is simply the management of human resources to carry out stated objectives. An organization plan is a systematic division of tasks to ensure that all functions are performed and that responsibility is definitely assigned for carrying out each of the activities essential to the attainment of the institution's goals. Organization, therefore, is one of the primary elements in administration.

Evaluation of Results

Most business enterprises constantly evaluate the results stemming from their administration. Not only do they project their expected sales and profits, but they also measure how well their actual performance compares with their performance as planned. They are vitally interested in learning why they were either above or below their projections. In a competitive economy, the most important ingredient for survival is the determination of basic causal factors. The industrial community, therefore, is constantly appraising the results achieved against projected patterns.

In colleges and universities, however, a regular evaluation of results achieved is a real rarity. Since planning is often deficient, perhaps we should not be surprised to find a corresponding lack of regular evaluation of the institution's achievements, or the proficiency of its administration, or the contribution of each administrator. More surprisingly, a thorough

evaluation of the entire instructional program rarely occurs.

While there are many exceptions, it is encouraging to note that a few boards have taken the responsibility for evaluation of the instructional program and have developed plans for exercising this responsibility through the use of outside experts.

Instructional Administration

Although colleges and universities exist for teaching and research, it is often these areas that suffer the most from administrative failures. Often these large-scale enterprises, involving the most significant expenditures of the institution, operate without basic objectives, with few controlling policies, with little or any formal organization structure, and without any appraisal of the results achieved. The hard facts of the situation would appear to dictate the necessity of reconsidering the role and use of college and university faculties.

The first step in this process is to devote considerable attention to the objectives of the college or university, since the utilization of faculties depends upon educational objectives and programs.

Once sound objectives have been decided upon, the curriculums should be designed to serve these objectives. This may mean that unnecessary degree programs and majors will have to be eliminated. It also may mean that courses of marginal value — that is, courses that do not serve the educational objectives directly — should be dropped or offered less frequently. Instead, the institution should concentrate on those offerings that directly relate to its objectives.

In most institutions, we find a high proportion of small class sizes, a proliferation of courses, a faculty-student ratio that may not best serve the objectives of the institution, little attention to the cost of various courses, and poor utilization of classrooms and laboratories. In addition, there is often little scrutiny of research projects to see whether these fit in with the educational aims of the institution and whether they can be handled without interference with the primary educational program. We find an uneconomic use of physical facilities of these institutions: Classrooms are far too large for the normal class section sizes in existence, and new facilities

**'In most institutions, we find
a high proportion of small class sizes,
a proliferation of courses, and
a faculty-student ratio that
may not best serve
objectives of the institution'**

are frequently constructed for a particular use when existing facilities are greatly underutilized.

Another detrimental factor is the needless proliferation of committees. Frequently, it is difficult even to classify the different committees, let alone determine their intended function. One of the basic tenets of administration of colleges and universities every time a problem occurs is to establish a committee. The committees operate without a clear definition of their functions, without a time limit in which they are to operate, and without fixed responsibility to some individual who is charged with administrative responsibility for the function concerned.

Personnel Administration

Normally in enterprises with high labor costs, personnel administration is one of the functions that receives regular and careful attention. It is this activity that determines the productivity of the human resources. In colleges and universities, however, where the use of human resources constitutes the greatest cost, oftentimes personnel offices do not even exist. If they do, their functions are liable to be severely circumscribed. We frequently find institutions operat-

ing without basic personnel policies, without a real promotion system, without a careful classification of the basic skills into grade levels designating levels of responsibility and authority, and frequently with inadequate salary scales. There is general failure to make use of centralized and specialized recruitment efforts.

Budget Administration

In the normal business enterprise, the control over finances is second only in importance to the analysis and control of human resources. Even though colleges and universities are traditionally short of funds, they frequently fail to use common techniques for the management of their financial resources. Most often they operate without skilled budget analysis; they use systems of budget administration that are rudimentary at best, and the budget more often than not is a secret process rather than a full-scale planning device to determine the best uses of the limited resources available.

Even though colleges and universities are among our fastest growing enterprises and although this rate of growth will significantly increase during the next 10 years, they very rarely examine the methods and processes they use to see if these are the most

productive ones for the enterprise at its present size level. Only one institution in a hundred plans ahead for the systems of administration that it will need as it increases in size. Most colleges and universities appear to be entirely innocent of analysis, which has been an accepted practice in industry for generations.

This cataloging of business problems and administrative deficiencies would be far too long to cover here. I have touched upon the most fundamental ones, although there are a number that might just be mentioned in passing. For example:

1. The financial reporting system often is inadequate and fails to meet the needs of operating management.
2. The chart of accounts often fails to regulate the accounting system so as to produce the financial reports needed and to keep the financial reporting structure and the budget in alignment.
3. The purchasing system often does not purchase at less cost than regular market prices, because of inadequacies in the system or in its operation.
4. The control of the purchase of expensive equipment often is inadequate, resulting in duplication of

equipment or little use of expensive items.

5. The auxiliary enterprises often operate without clear guiding policies concerning their basic objectives, and without a careful review of costs and results.

6. The buildings and grounds costs frequently are not effectively controlled, often because of the lack of a system of cost control by work order process.

7. The printing and duplicating activities often do not provide the type of service required within the time period the service is needed, and there is frequently a lack of control over expensive printing, so that a great deal of the financial resources of the institution are channeled into public relations types of printed material that are often of questionable value.

Encouraging Signs

While the following practices are still hardly common, they are an encouraging sign that there is an awareness of the importance of the administrative function in colleges and universities and that steps are being taken to improve the administrative process. These encouraging signs include the following:

1. We have noted in a few institutions a major concentration on policy development and the codification of policies once they are approved by the governing board. In these institutions, there is an acute awareness that the administrative staff has the responsibility of identifying the policies needed and of developing them for board consideration. These policies, once developed, have been codified in policy manuals and made available to the entire operating staff for their guidance in administration.

2. Another encouraging sign is the attention devoted by a few institutions to regularizing their organization plans and documenting these plans in organizational manuals. These organizational manuals consist of detailed organization charts, a full description of each supervisory position, the basic policies on organizational relationships, and often the classification of positions within the organization into grade levels that are consistent with levels of duties and responsibilities.

3. In even fewer institutions, but in an encouraging few, we find excellent concentration on long-range planning. Some institutions have gone to the extent of planning the type of electronic data processing system they should have five and 10 years from now, in order to equip them to process the mass of students which is projected.

4. Another highly encouraging sign is that we find an increasing willingness of institutions to tackle course offerings. As a part of a program of analysis of their instructional costs, a few colleges and universities are now taking a hard look at the degree programs offered, the number of courses offered, and the sizes of classes.

5. Another encouraging management trend that seems to be growing is the translation of the budget into meaningful terms of workloads and unit costs. This makes the budget meaningful to the board of trustees as well as to the administration, and enables a clearer analysis of increasing costs based upon workloads.

6. We have also noted in larger institutions growing recognition of a need for regular staffs for methods analysis in order to regularize the processes that are used and to plan for their development as work volumes increase. There is growing recognition among colleges and universities, even the smallest ones, that outside professionals often can aid them in improving their administrative processes or in revising their organizations to carry out their functions.

Further Improvement

I would like to touch lightly on a few areas where I believe management improvement is further needed. In these areas little has yet been done, but they seem to offer considerable potential in equipping colleges and universities to meet the tasks facing them during the next 10 years.

Considerable benefit could result from a coordination of educational programs by regional area. Instead of competing, the institutions could become complementary and provide needed educational patterns as a group rather than each one trying to provide all programs itself. In some situations, this seems to offer also the possibility of joint use of physical

facilities, as well as the joint use of research equipment. With physical facilities and research equipment in the electronic age constituting major expenditures, there seems to be a real possibility for improving educational programs through joint use of expensive facilities rather than competition with inadequate equipment and facilities. This point seems particularly important when we find, for example, electrical engineering being taught in the electronic age with equipment that would seem outdated even for 1900 use.

We have made some efforts to try to get various institutions to coordinate their library activities, so that each of them did not try to have a complete research library, as well as a good working undergraduate collection. These efforts have met with very little success to date. Up to now, at least, institutions have been concerned more with the number of volumes in their libraries than with making excellent research collections available through the pooling of resources. A few encouraging steps have occurred in the establishment of union catalogs, which sometimes cover regional resources available in several institutions.

Cooperation with other institutions on other academic matters seems to offer considerable advantage. The possibilities here seem many and might encompass cooperative degree programs, the sharing of outstanding faculty, the joint appointment of capable but not readily available faculty personnel.

Cooperation in business services seems to offer additional advantage and might take on such functions as the sharing of electronic computers in order to provide a central source for accounting, payroll, budgeting, registration and other data processing activities.

Further cooperative effort might entail the use of test results to improve business practices.

Colleges and universities have now amply demonstrated that they are willing to cooperate with each other in asking for money to support their institutions. It would seem that the next challenge would be to see if they are willing to cooperate to save money, or make expensive facilities available to a wider range of students. ■



Night view of glass-enclosed, landscaped center court of the University of Pennsylvania's new women's residence.

Landscaped Court for Coeds

THE recently completed \$4 million women's residence at the University of Pennsylvania was designed to contribute to the educational experience of students as well as to serve their housing needs.

Its design provides each of its residents an opportunity to live in a small group, and also the opportunity to develop her special abilities in leading and participating in the activities of the residence's larger community.

While blending in exterior materials and forms with its campus neighbors, the new women's residence turns inward on itself. Although from the exterior the building appears to be a single, four-sided structure, it consists of four separate houses, which are joined to share a central interior court. All student rooms are on the perimeter, or city sides, of the building, each with its own window. All the social and public rooms surround the court and face into it.

The exterior of the building, of hand-molded red brick and black steel, presents a deliberately unpretentious aspect. The walls are broken by three different window types. This variety of window types enlivens the building's exterior and keeps the students' rooms from repetitive similarity.

The airy, landscaped, glass-enclosed five-story high court is the central feature of the interior. Some of the social and public rooms pro-

'Architecture, landscaping and furnishings throughout the court, and especially on the court level, have been designed to emphasize the spirit of the village square'

ject deeply into it; others are pulled back under the balconies so that there is a lively variety and dynamic interpenetration of space.

The building's main entrance is from an exterior ramp-walk to the second floor of the court, referred to as the court level. This level, which contains the informal lounges, serves as the main crossroads and social center of the residence hall in the same way that a village square relates to its surrounding buildings. It is the hub and core of the communal dormitory life and provides access to all other areas. The center area of this court level is open and overlooks the cafeteria area on a paved dining terrace, with its central decorative fountain, on the ground level below. The various projecting and recessed formal lounges and shuttered private balconies of suite activities rooms can be seen from both levels.

The materials and color scheme of the court provide a quiet background, almost Mediterranean in feeling. The interior court walls are white painted, poured concrete and black natural cleft slate. Floors are terra cotta tile. Wrought iron balustrades and louvered shutters are painted white. This quiet background is enlivened by the bright green of lush tropical plants, and by vines and other plantings that suggest hanging gardens.

By day, the court is open, spacious and filled with natural light. By night, its character changes complete-

ly. Under soft but dramatic artificial light, it takes on a sparkling, glamorous, rather "Arabian Nights" aspect.

Both the informal lounges on the court level and the formal lounges above provide contrasts in color to the court. There is further contrast between the informal lounges and formal lounges. The former are treated rather like elegant porches, with black furniture, coco-mat rugs, and accents of vivid colored cushions. The latter are more like formal interior rooms, with carpeting, silk-paneled end walls, and furniture upholstered in velvet.

Architecture, landscaping and furnishings throughout the court, and especially on the court level, have been designed to emphasize the spirit of the village square and to make a contrast between the active and social communal life of a dormitory and the intentional quiet and privacy and academic atmosphere of the students' rooms.

The building houses 656 residents. Each of the building's four houses is divided into suites accommodating from 16 to 24 students. All suites have their own private entrance from the main stairs and have a student activities room with facilities for students to prepare light refreshments. Every house also has its own laundry room, with automatic machines, and an ironing room for student use.

Houses also have an informal lounge on the main court level and a

formal lounge above with an adjacent kitchen, suitable for catering of formal teas and similar social occasions. Each of these four formal lounges has its own distinctive color scheme: red, blue, orange and green.

Small apartments for the head residents are near the main entrance.

There is a secondary entrance to the building at the ground or dining level. Here a small lobby opens directly onto the cafeteria terrace and a small snack bar. Below this level there are provisions for a future recreation room.

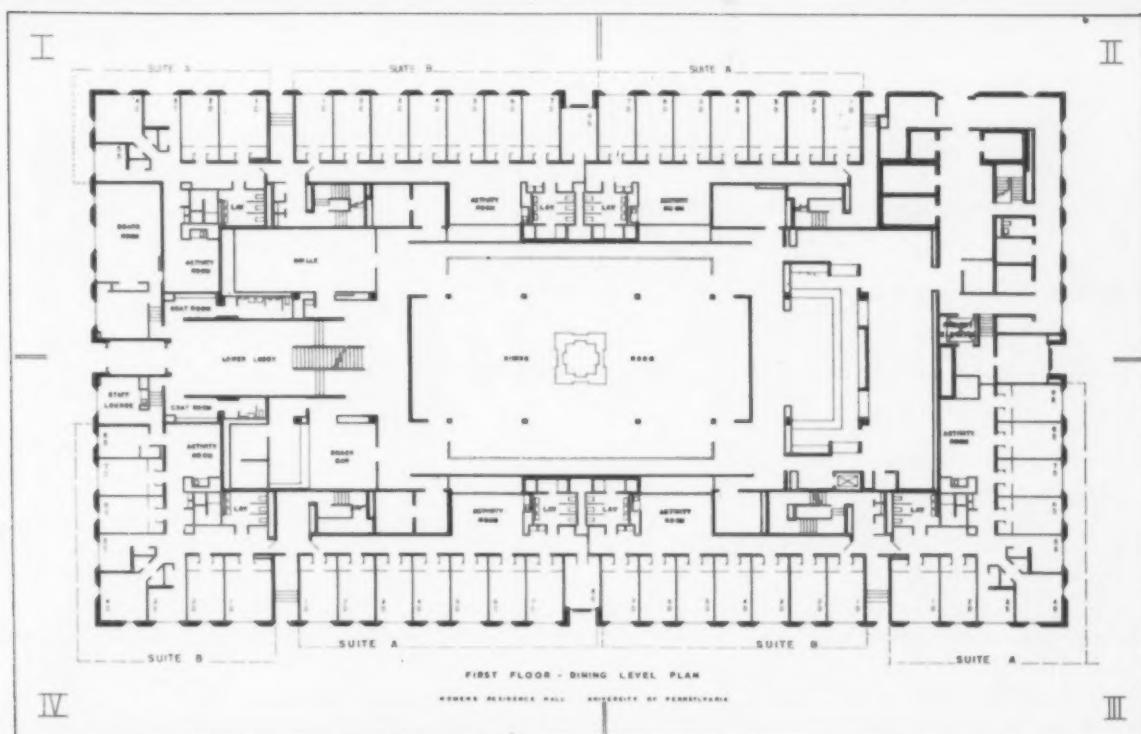
The student rooms provide a quiet, utilitarian background, allowing each student the opportunity to use personal furnishings to express her taste and personality. The rooms have white painted, concrete walls and charcoal gray floor tiles. Furniture is natural walnut.

Furnishings throughout all areas were designed by the architects and built expressly for the building.

Exterior plans provide for future landscaping and trees between the building and surrounding protective fence.

Eero Saarinen and Associates, Birmingham, Mich., designed the residence.

The residence was built with funds made available to the university by the Housing and Home Finance Agency and by gifts of the alumnae and friends of the University of Pennsylvania. ■

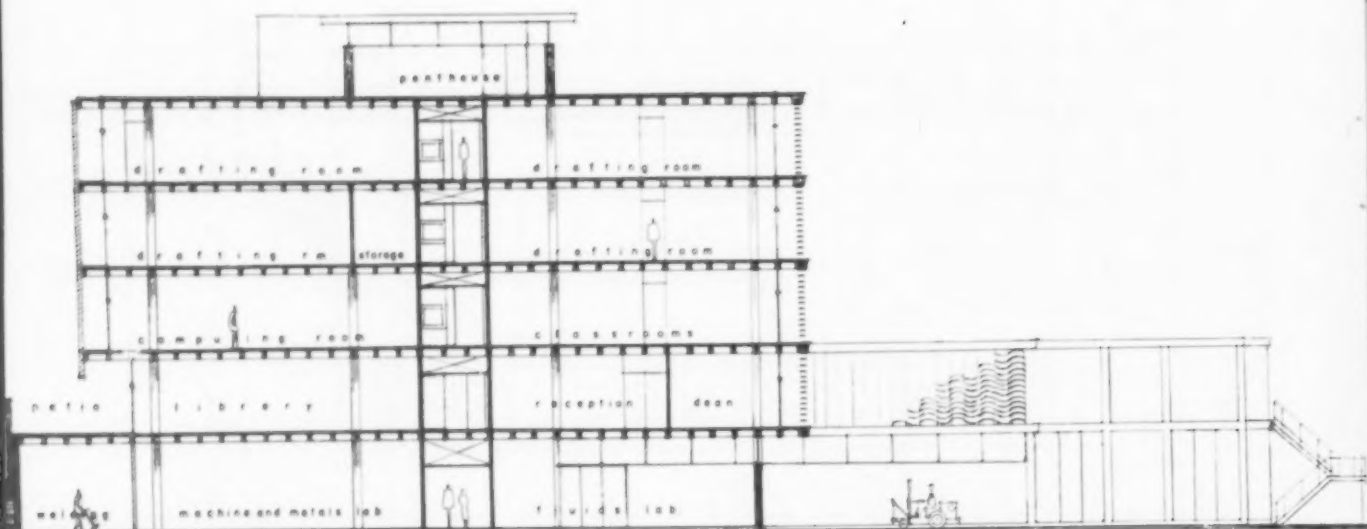


Floor plan shows
court area, room layout,
and dining room space.

Each suite of the new
women's residence centers
around an activities
room, similar to the one
shown at the left.



Exterior view of the
main entrance to the
University of Pennsylvania's
new women's residence.



typical cross section

Above: Cross section of the Engineering Building shows placement of rooms. Opposite Page: View of front of building showing anodized gold aluminum front screen, Japanese ceramic tile.

They Built In Sun and Wind Control

The Engineering Building of the University of Miami was designed to utilize nature's gifts of year-round sunshine and tropical breezes and to keep maintenance costs down

Eugene E. Cohen

Vice President and Treasurer
University of Miami, Coral Gables, Fla.

THE blending of the talents of the administration, the teaching and research faculty, and the architect into a building of unusual adaptability and beauty is reflected in the new J. Neville McArthur School of Engineering Building. The building, a gift from a trustee, dominates the center area of the University of Miami's main campus. Its planning was centered on a budget that demanded careful cost analysis and an operational requirement of future minimal maintenance expense.

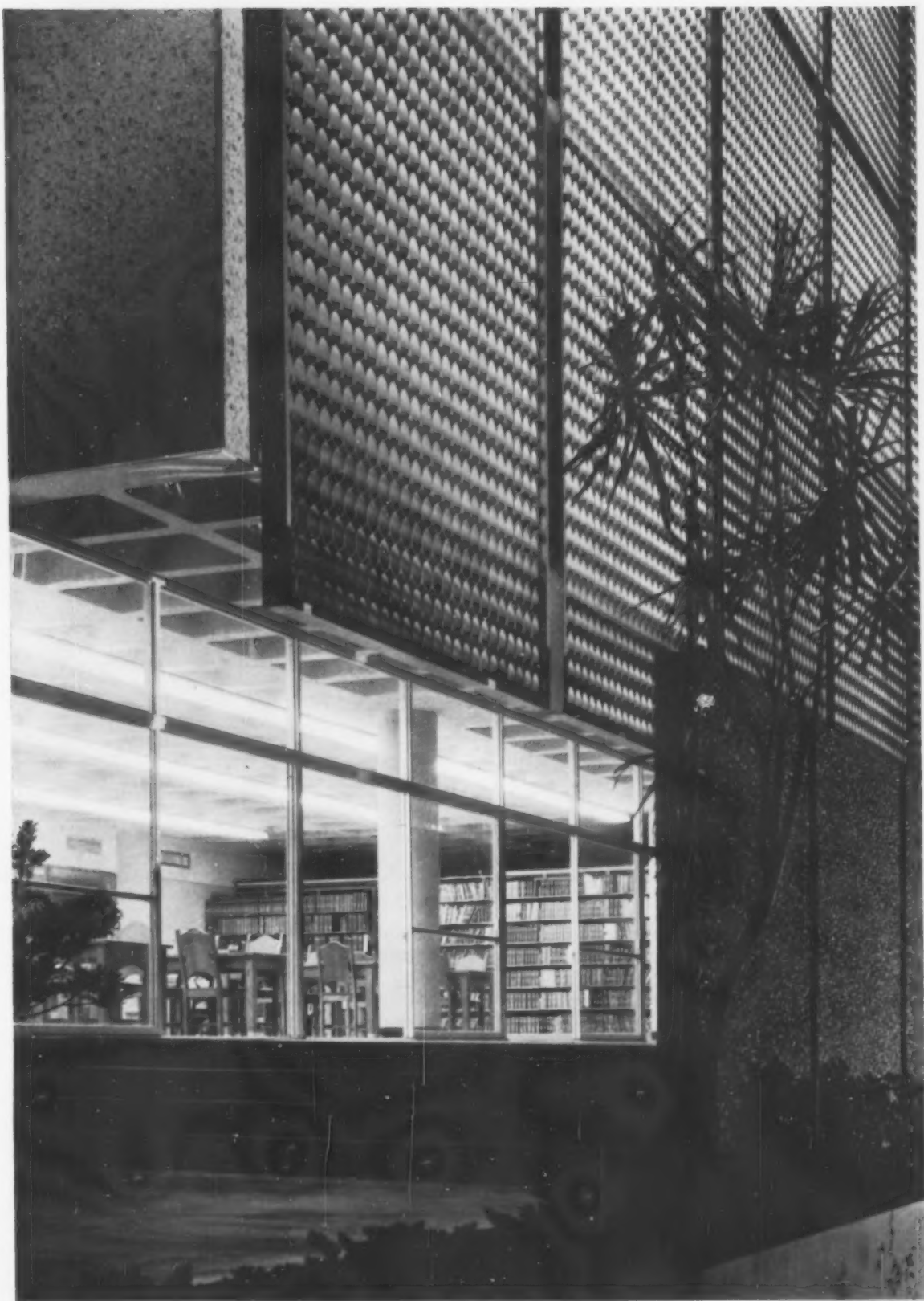
The building houses the entire engineering school, including 12 laboratories, 11 classrooms, five computing rooms, eight drafting rooms, 26

offices, engineering library, faculty lounge, conference room, and all pertinent facilities. Present student capacity is 1350 and the building is planned to take care of an anticipated enrollment of 2600 students before expansion to the rear will be necessary.

The terraced site has a space allotment of 380 feet in width by 370 feet in depth on which the building is located. The cost of \$1,015,456 included contractor's fee, elevator, \$12,000 worth of special cabinet-work, all ductwork and piping for air conditioning and heating, mechanical ventilation systems, fumes exhaust system for internal combus-

tion laboratories, "in-the-slab" race-way electrical system, connection of power and water to building, and linking to campus sewage system. This cost figure does not include architectural and engineering fees, air conditioning compressors and air handling units, laboratory equipment, and furnishings. The building contains 95,828 square feet and was built at a cost of slightly more than \$10 per square foot. Construction time was 10 months.

The entire structure was built on a 3 foot module using a waffle type slab ceiling and floor with round concrete columns spaced in bays 24 by 27 feet. There is no variance from



'The building was
designed to have a minimum
of maintenance throughout
the years'

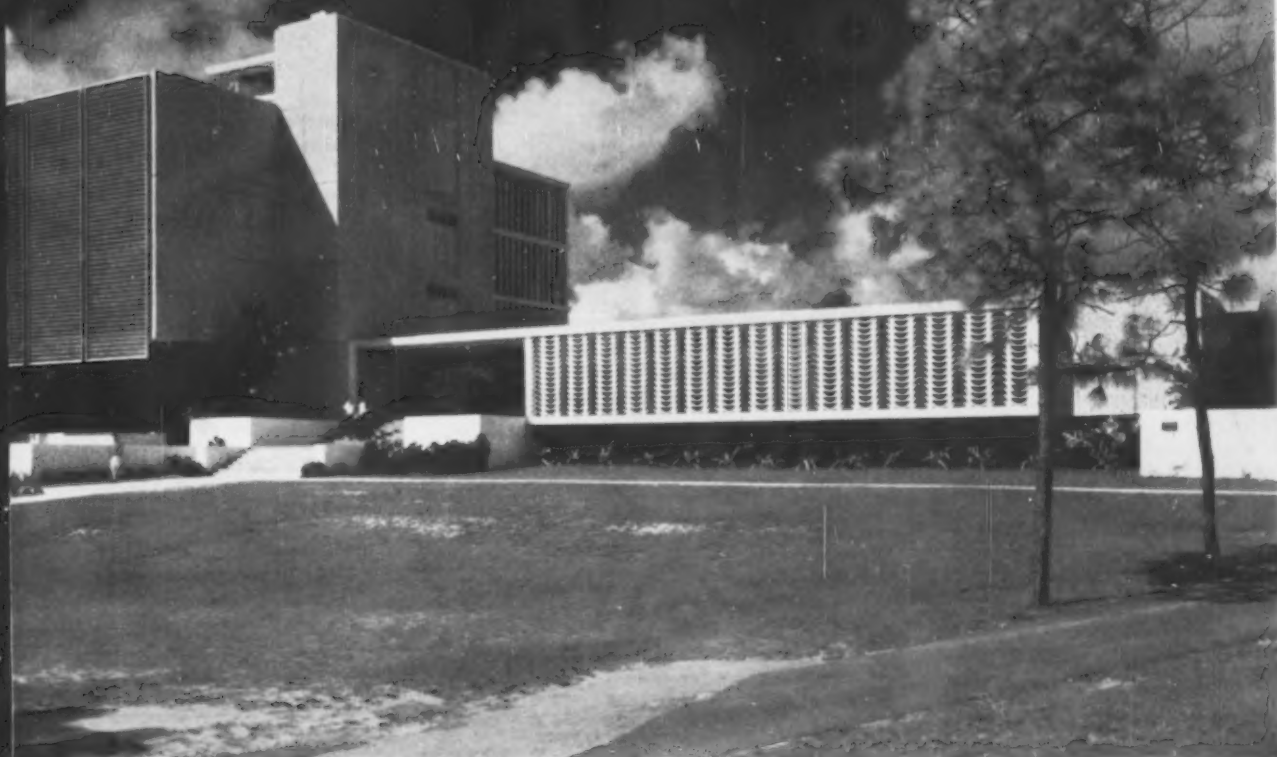


Classroom view showing sliding glass doors and concrete grilleblock.



this module in the entire building. The ceiling has been sprayed with asbestos fiber with adhesive to provide excellent acoustical properties. The necessity for vertical walls, other than those at the ends which were poured for wind bracing, was eliminated by the use of this type of construction.

For sun control and air conditioning reasons, a sunscreen of anodized gold aluminum on the four-story central portion of the front facade and especially designed concrete grille-block on the other exterior areas was used from floor to ceiling around the building set out on the face of the



General view of the exterior of the University of Miami's Engineering Building.

slab. This provides a service walk space between the sunscreen and the normal fenestration wall.

This wind and sun control permitted the installation of sliding glass doors extending the full width and height of classrooms for the exterior wall treatment, and affords maximum ventilation and natural lighting. It was also a maintenance feature as window cleaners have only large sheets of glass to clean and a guarded walkway on which to stand.

The expanse of glass gives a feeling of spaciousness to classrooms and eliminated portions of walls that would have to be maintained. The

terraced treatment provides a break in the usually level Florida terrain and adds interest and landscaping opportunities to the site.

The building was designed to have a minimum of maintenance throughout the years. This was accomplished by the use of permanent materials on the exterior, such as sun-screen precast in natural white cement (unpainted); the anodized gold aluminum grille; resin on the edge of all exposed slabs; Japanese ceramic oval-shaped tile over all exposed concrete wall surfaces, and exposed cement block in random pattern on the first floor.

Spacious hallways, excellent acoustics, and superior natural lighting have already drawn the highest endorsements from the student body. The ability to lecture in comfort and without stress has proved the building's popularity with the faculty. The research programs already enjoy the flexibility of the module technic and the exposed utilities for inexpensive tie-ins.

The community and the alumni are proud of this outstanding physical addition to the campus.

Architect for the building was Wahl Snyder, Wahl Snyder Associates, Miami. ■

'We Operate Our Own Food Service'

... in order to maintain
profitable control of
our operations

Elmer Jagow

Business Manager, Knox College, Galesburg, Ill.

FOOD service is an important part of the auxiliary operation of almost every resident college or university.

I shall discuss food services from the point of view of the college operated activity as related to the often discussed method of food service by concessionaire. I will not attempt to answer categorically the often present question of whether an institution should operate its own service or enter into a contractual relationship with an off-campus organization. Widely differing circumstances and points of view affect too substantially the considerations toward any such decision. We should review, however, the responsibilities of management of a food service activity on a college campus as it is affected by the several management factors comprising all food service control.

Questions for which correct answers must be sought in terms of our own campus food service will be organized generally around the following topics: (1) Our philosophy of food service on the campus. (2) Menu policy. (3) Food service facilities. (4) Personnel and staff. (5) Production controls. (6) Financial controls. (7) External engineering.

Our Philosophy

The point of view on a campus that relates to the job that food service can do will describe the setting in which this activity must operate. How does a college catalog describe the attitude toward students? Are we attempting to educate "the whole

man"? Have we formulated clearly the task food service is to undertake? Do we recognize it as an important phase of the general morale and good will both of students and staff? Is it an educational activity that engenders grace and social *savoir-faire* as a residential contribution to student training? Or are we trying to feed students in the quickest, least expensive, and least troublesome manner?

Are we consistent with ourselves by clearly defining our philosophy regarding dress at meals? Are students required to wear coats and ties, for instance, or are bobby socks and Bermuda shorts the order of the day? Schools that provide 20 or 21 meals a week must remember that continued satisfaction brings the greatest amount of student and staff support for the food service.

Menu Policy

Persons well acquainted with food service management often agree that the menu serves as the basis of the food service operation and is its guiding pattern. Are you aware that costs, the level of service, the menu pattern and its cyclical variations are important aspects of menu policy? Does our menu rate highly only when put to the test of an accounting balance sheet and operating statement? Or will it successfully survive the constructive criticism of persons who regularly eat the meals? Often, I believe, carefully controlled levels of food costs tend to ignore the rhythm so necessary to student satisfaction.

Does our menu policy recognize the class of students who are being served, their geographic origins, the presence or absence of husky appe-

tites? Our constituency will substantially affect the menu structure. Football players and active athletes require rather different menus than a group of nominees for a reducing diet.

Food Service Facilities

Dissatisfaction in the food department on many college campuses can be traced to inadequate facilities rather than inferior food service management. Decor, up-to-date equipment, and the recognition of atmosphere as important ingredients in a successful food operation must be recognized. To achieve satisfaction for diners at a wonderfully historic college setting is considerably more difficult if the food service equipment is equally historic and antiquated.

Is your food workshop equipped according to acceptable modern standards? Has a growth in enrollment meant overcrowded conditions in dining rooms and kitchens? Will seating on your campus pass the test of the human equation, the multiplication of persons seated times square footage? Has the kitchen been studied for adequacy and efficient arrangement since the draperies in the dining room have been renewed and the furniture has been refinished? On a campuswide approach is the food service facility located conveniently? Are you sensitive to the long lines of busy students who wait at cafeteria counters? If lines seem inevitable, are the waiting places pleasant, well lighted, and well ventilated?

Unfortunately college administrations often cling to artificial clichés about student housing and food serv-

From a paper presented at the annual meeting of the Eastern Association of College and University Business Officers, December 1960.



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ice and insist on impractically small groups as the basis of appropriate social interaction. A study of the economic unit for a food service activity seems essential to a successful operation. This very importantly affects lay-out, operational costs, manpower requirements, and dollar volume.

Staff and Personnel

College administrators must recognize that food services operate on a different cycle than do many academic departments. The very nature of food services involves a rather fluid

situation with short lead time and management requirements quite different from those almost anywhere else on a college campus. When we are solving problems consisting completely of things, the grasping of the elements of the problem usually is attainable. Relationships with people, however, and creating successful working situations require considerably added management ability. It is encouraging, therefore, and most rewarding when a difficult circumstance involving people working together can be successfully solved.

Food service staffs are comprised of two generally definable groups: the permanent staff and the student staff.

As we look at the full-time, permanent staff on many campuses, we find that the college administrator is unhappy with a comparison of results between units at different colleges. It has been found that persons expect the same kind of quality service from a \$5000 per year dietitian that a concessionaire is obtaining from a \$10,000 food manager.

Have you properly matched job requirements with personnel resources? What about the support the food service staff receives from the college administration? Are the professional staff members regarded as such on the campus? Are salary levels and benefit levels consistent? Is the circumstance on your campus one that encourages initiative and professional improvement?

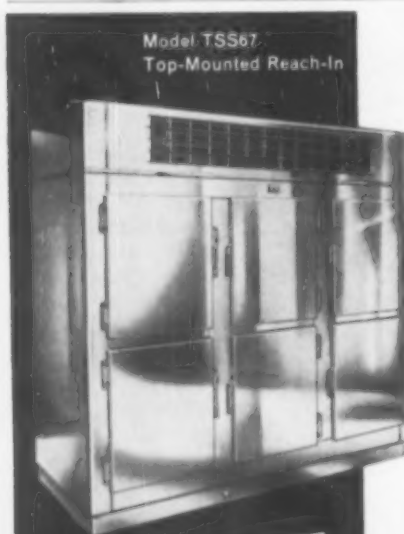
We must recognize that in staffing a food service facility we are probably providing personnel for a 21 meal-a-week activity. This means that from 95 to 100 hours per week of staff work goes into keeping house, preparing meals, and managing our food department. Most of the tasks require immediate attention; the work can't wait. College administrators must recognize that, unlike the front office, the hours of operation in foods are considerably more extensive.

Management Ability

Staff evaluation must also recognize and evaluate the need and the resources for dietetic and management ability. In engaging personnel, the choice must be made between strength in one or the other. It seems that those most successful favor management as the more important qualification.

Hotels have long ago recognized the need for competent personnel in "the front of the house." Many favored places have a definite personality, often exemplified by the members of the staff. Have you recognized the value of a personable manager, of a hostess or someone who serves a social, as well as a management, function in relationship to student diners?

Considerable success is achieved by a successful catering aspect of the food department. Business management must recognize the extensive re-



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quirements beyond the regular meal hours involving parties, snacks, teas, outings, picnics, banquets, special dinners, and dances. Staffing plans must include this important responsibility.

Successful staffing not only depends on a sufficient amount of help but also on the selection of the right kind of workers in the provision of adequate supervision.

When students are employed, are they adequately supervised? Are they trained, informed and motivated in the direction of your food service

policy? Do you measure production? Do they operate and work under conditions of adequate control? Is there incentive to do a better-than-average job? Are students employed as a part of the scholarship program, or can they be justified in terms of operating requirements?

Production Controls

It's been fun to observe on various campuses the sense of proportion and perspective that some business managers have. They become very concerned about the second pat of butter

or whether a student can have an extra glass of milk, but pay little attention to the fact that the improper preparation of foods, the rapid roasting of meats, for instance, is wasting much more money and satisfaction than all the seconds that the students might wish to have. The emphasis recently placed upon portion controls often sends us off balance when we should think about production controls.

The purpose of portion controls is to ensure an adequate and uniform serving for every guest. The purpose is not to try to reduce portions and thereby save a little money.

Control of waste is an important factor in all food service operations. Years ago, one measure of efficiency in a kitchen was to carefully observe how rapidly the garbage can was filled. Is your food service management watching this factor?

Financial Controls

College business managers should recognize that in food service an entirely different cycle of control is required as contrasted to the academic departmental budget; for instance, you can "lose your shirt" between breakfast and lunch. Therefore, controls by the semester are much too slow. The mechanics of good control seem to come as close as any of the factors listed to the idiom and vocabulary of the business manager.

We understand the requirements of a purchasing department, but often we are so enveloped in the procedures which are necessary that we fail to produce food service supplies and purchasing on the rapid day-to-day basis that is required. Careful purchasing on the part of any one institution often would substantially improve the cost of food and would begin to approximate the cost prices of even a national catering concern. If the purchasing is done by the chef as the delivery man comes in the back door, no operation will be successfully efficient.

All colleges should have accounting systems that provide for expenditures and classifications and cost accounts which work adequately for reporting and control purposes. Appropriate methods can provide the necessary data for college management.

It is important, however, that we do not try to run steamships with

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cigar store methods; therefore, chemistry budgets and food service accounting must not necessarily be exactly the same. The classification of accounts and the reporting procedures are, after all, means to information and management opportunity. Therefore, you must account for your food service facility in a way that makes sense as far as food service is concerned. We must have food costs and labor costs on a daily, weekly and monthly basis. We must also know what our student labor costs us, and we must have precosting in-

formation so that we can plan accurately.

The payroll, because of its student adjunct, often creates a sizable bulge in our payroll activity. It's true also that many food service operations do not work on a straight monthly basis, and therefore our payroll clerks must make some adjustments in their monthly or semimonthly procedure.

External Engineering

Pressures are brought to the college business manager from many interest groups. You have observed

how the "sidewalk engineer" participates in the building of a large downtown structure. On a college campus these "engineers" must also be recognized, accommodated, facilitated, but not permitted to interfere with the main job at hand. This is just a short list (indicative rather than exhaustive) of the things demanded of the food service director. He is expected to: buy locally; hire more students; serve steaks more frequently; avoid the monotony of college food; make a larger profit for the education program. And there are many more that could be mentioned.

What is the function of business management at your school? This is an important question when we begin to consider food service by concessionaire. In a resident college, do we actually provide the residential benefits we talk about? Do we have control over the kind of operation that provides these added advantages?

Accounting Officer's Function?

As a business manager, does the job include the multifunctions involved in auxiliary enterprises, or is this strictly an accounting officer's function?

Can the business manager develop a staff in such a way as to cover the expansion of the college, or is he limited to the extent that he must hire outsiders for all of the extra work as the school grows?

Some business managers state: "It's so much easier to contract these problems to others. I'm no specialist in food services." This, I would readily grant. I would ask then, are there other areas which probably ought, with equal propriety, be farmed out, delegated or contracted to others? What about the buildings and grounds operations? What about the centralized accounting for a group of schools? Or a service accounting arrangement? This could be carried, I suppose, to the extreme whereby the management of a college or university might even, in a sense, handle its faculty or teaching function by contract or by concessionaire.

There are few things that can't be bought: products or services in our expanding and dynamic economy. The growth patterns of colleges and universities are giving rise to all kinds of specialties that are fighting for the functional responsibilities so regularly associated with college and university management. ■

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NEWS

Survey Indicates Donations Record

NEW YORK. — Private financial support to 50 of the nation's leading colleges and universities reached a record last year with a total of \$283,512,000 in contributions.

A survey by a large fund raising organization showed that the new high represented an 11.3 per cent increase over 1958-59, or \$18,774,000 over the old high.

Individual gifts accounted for 43.7 per cent of the total; foundation grants, 28.2 per cent; corporation gifts, 11.3 per cent, and bequests 16.8 per cent.

The leading beneficiaries were Harvard, \$37,519,000; Stanford, \$18,440,000; Columbia, \$17,791,000; Massachusetts Institute of Technology, \$17,347,000, and Yale, \$16,112,000. New York University received \$11,196,000 and Princeton University \$15,545,000.

Since the surveys were started 40 years ago, contributions have increased tenfold, rising from \$28,-

145,000. During that period, the survey noted, the institutions have received almost \$3.5 billion.

Missing Ram Found . . . They Think!

NEW YORK. — A Kelly green poodle with horns was found chained to a fence outside an office in Madison Square Garden. While it does not resemble Fordham University's kidnapped mascot, a proud, woolly yearling ram, it is believed to be the same.

Rameses XIX, the mascot, was found recently with his fleece trimmed in a contemptuous poodle cut and tinted a tattle-tale green, and it has been noted by Fordham students that Manhattan College's color is the same shade of green.

But nobody put the finger on Manhattan. Robert Furphy, a Fordham senior and one of Rameses' keepers, said the act of breaking into his campus home was "just vandalism." The perpetrators might be from Manhattan or "could be anybody," he said.

Twelve Colleges Form New Association

CLEVELAND. — Twelve liberal arts colleges in Ohio, Indiana and Michigan have banded together into a new association to promote extensive cooperation for strengthening educational programs of the colleges which represent 16,300 students and 1223 faculty members. The new group will be called the Great Lakes College Association.

Members of the association are Antioch, Denison, Kenyon, Oberlin, Ohio Wesleyan, and Wooster in Ohio; DePauw, Earlham and Wabash in Indiana; and Albion, Hope and Kalamazoo in Michigan. President Landrum R. Bolling of Earlham College was elected chairman of the board of directors.

Vanderbilt Gives Yacht to College

WASHINGTON, D.C. — A two-masted schooner, reported to be the largest private sailing ship flying the American flag, has been donated to Stanford University by the grandson of the late Cornelius Vanderbilt.

George Vanderbilt, a trustee of Stanford and philanthropist, gave the schooner to the university on the condition that someone else foot the bill for her refitting and operation.

The federal government, in response to this condition, has provided \$462,945 to enable the university to refit the vessel as a floating laboratory which will concentrate on biological work in the northeast Pacific. Assigned to the university's Hopkins Marine Station at Pacific Grove, Calif., the yacht will then sail on a three-month shakedown cruise.

According to the National Science Foundation, which made the grant to cover refitting, the schooner at 172 feet will be the largest sailing ship in the world for scientific research.

Einstein Medical School Gets \$1 Million Gift

NEW YORK. — A gift of \$1 million has been made to the Albert Einstein College of Medicine of Yeshiva University. It is the first major contribution to the \$27.5 million development program of the university's medical

(Continued on Page 82)



Cleans without scratching

Here's a dual formula powder that removes stains, burnt-on food, oxidation from stainless steel and copper. Cleans better than cream, without scratching, and polishes, too—at a much lower cost. Convenient 19-oz. shaker can. A full line of Babbitt products is available through your sanitary jobber.

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Cushman vehicles are **VERSATILE**—can be used to deliver mail; by the campus police; for the movement of supplies; for grounds work; by the various maintenance shops; and for scores of other jobs. They're **COMPACT**—can operate on campus sidewalks—even inside the buildings—as well as on the streets. Most important, they're **EXTREMELY ECONOMIC**. You save on initial investment, operating and maintenance costs, and insurance.

The Line includes:

The GASOLINE TRUCKSTER

Handles up to 800 pound payload at an operating cost of about a penny a mile or less. Now with choice of two all-new, die-cast aluminum engines: Two cylinder, rated at 18 HP; single cylinder, rated at 9 HP.

The ELECTRIC TRUCKSTER

Handles up to half-ton payload; travels up to 50 miles on a charge. Can be equipped as personnel carrier to carry five people plus cargo.

One and Two Passenger INDUSTRIAL ELECTRICS

Travel up to 40 miles on a charge. One-passenger has carrier space for mail, tools; two-passenger carries up to quarter ton.

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FREE Cost Analysis Report and Descriptive Literature.

FREE . . . Actual Truckster Cost Analysis now available

A coast to coast survey of typical Truckster users proves utility and greatest economy. Operating costs for the Gasoline Truckster in wide range of applications ran as low as 0.6 cent a mile and averaged 1.18 cents a mile. Complete results have been compiled in condensed form and are available on request.



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MODERNIZATION—



Boylston Hall, Harvard University, Cambridge, Mass., Architects: The Architects Collaborative, Cambridge, Mass. (Partner in charge: Benjamin Thompson. Job Captain: Richard White).

Architects increased floor space by adding one complete floor, a partial mezzanine and utilizing an open central double stair hall plus a previously unused penthouse.

— including air conditioning — preserves Harvard landmark and \$500,000!

HerNel-Cool unit ventilators air condition newly remodeled language center

HARVARD University's Boylston Hall was built in 1857. Three years ago the architects were asked to modernize the building's interior without disturbing its traditional exterior. Their plan was unique. It created 40 per cent more floor space by ingeniously re-arranging the existing area, and it gave Boylston Hall year-round air conditioning. This plan saved Harvard nearly \$500,000 based on the comparable estimate of the cost of new space, and gave the university a completely new and modern language center.

Now every classroom receives the *individual attention* that only a Herman Nelson HerNel-Cool year-round unit ventilator system can offer. In cold weather, HerNel-Cool units heat, ventilate, and cool (with outdoor air) — all on a room-by-room basis. They also *automatically* control building temperatures and humidity levels during hot, humid summer weather.

Investigate the flexibility and economy of Herman Nelson air conditioning systems for either new-building or remodeling projects. Write: Herman Nelson School Air Systems Division, American Air Filter Company, Inc., 215 Central Avenue, Louisville 8, Kentucky.

Herman Nelson 
SCHOOL AIR SYSTEMS DIVISION



Unit ventilators adapt automatically to thermal needs of large areas such as this lounge-meeting room in Boylston Hall or to smaller spaces such as classrooms.



The Insured TUITION PAYMENT PLAN

This is the prepayment plan that brings the parent low-cost life and disability insurance protection, plus a monthly budget provision that extends to the final month of his educational expenses four or more years hence. Used today in many of the best-known colleges and preparatory schools, it has proven most valuable to administrative officers by providing them with a dignified, parent approved method which:

- 1 alerts parents to their financial obligation when the student is accepted for admission;
- 2 offers parents a convenient and logical plan for meeting that obligation;
- 3 assures the parent (and thus the college) that he will have adequate funds with which to meet his college obligations in full and on time;
- 4 preserves the traditional relationship between the college and the parent—debt-free and direct.

Individualized descriptive literature for mailing to the parents of incoming students is furnished for each preparatory school, college or university.

WRITE TODAY FOR DETAILS

We should like to know more about the Insured Tuition Payment Plan as it would apply to the student at:

Name of School
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Please contact: _____

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38 Newbury Street
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NEWS

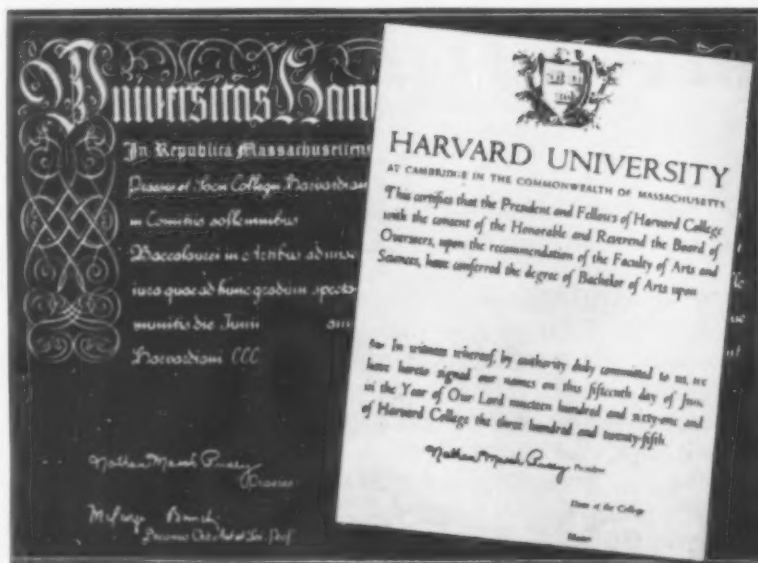
school. The funds will be used to establish a pavilion to be called the David and Irene Schwartz Pavilion when the new university hospital is built.

The donor was David Schwartz, an overseer and founder of the Albert Einstein College of Medicine, to which he and Mrs. Schwartz gave its

psychiatry research wing in 1959. He is a trustee of the Federation of Jewish Philanthropies and president and chairman of Jonathan Logan, Inc., dress manufacturer.

The medical college was named for Albert Einstein in 1953, two years before his death. Its first class of physicians was graduated in 1959.

'Latin, Si, Pusey, No'



Harvard University's committee on seals has introduced a new diploma, which is printed and measures 8½ by 11 inches and does not contain the seal. The new diploma resulted in rioting by students who wanted the Latin engraved baccalaureate degree diploma granted by Harvard College for 325 years.

CAMBRIDGE, MASS. — Students "parked their cars in the Harvard Yard" recently and proceeded to riot. Crying "Latin, si, Pusey, no," the underclassmen of Harvard College demonstrated for two nights before a dictum was issued from the dean's office quieting the campus.

The demonstrations weren't over the Cuban situation, but were the result of a change in the diplomas for bachelors' degrees. Harvard College's committee on seals has been responsible for changing the Latin engraved baccalaureate degree diploma, measuring 11 by 14½ inches and containing an embossed seal, to an English printed diploma that measures 8½ by 11 inches and does not contain the seal of the institution. The seal has been used for 325 years.

Although the first English diplomas were given to students who completed their requirements in February, no notice was taken of the change until an article appeared in *The Harvard Crimson*, undergraduate daily newspaper.

Demonstrations over the change spilled out onto the streets of the town and Cambridge police had to fire tear gas bombs to break up a throng of several thousand students in Harvard Square. Egg throwing and beer can heaving students caused administrators to threaten severe disciplinary action.

The dictum brought peace back to the campus, but not before four students were arrested on charges of disturbing the peace.

All's quiet on the Eastern Front.

IT'S WHAT YOU CAN'T SEE

WHEN YOU BUY FLOOR TREATMENTS you demand visible protection for your floors — mar-free beauty even under heavy traffic — underfoot safety — economical labor-saving maintenance.

For over a half a century the invisible ingredient—Hillyard experience—has created highest performance standards. Endless research in techniques of manufacture, researching raw materials, finalizing formulations, timely raw material buying in world markets, continual testing and precise laboratory controls guarantee you uniform high quality products.

The first trademark registered drum design in our industry—the blue and white

checkerboard container—for generations has protected users with the promise—"You Know it's Right if it Comes in the Checkerboard Drum."

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Bassick glides save floors, slide more freely on generously proportioned, highly polished bases. And Bassick rubber cushions kill noise and clatter. Bassick has some new glides, too: Nylon base glides that can't rust or corrode, can't stain floors, even in the dampest air. And glides that automatically keep tables from wobbling. Find out about Bassick glides for your school.



1-34

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NEWS

Subcommittee Adds to College Aid Bill

WASHINGTON, D.C. — Provisions for construction grants amounting to \$900 million were added recently to the Administration's bill to aid higher education by a House education and labor subcommittee.

The measure, as drafted, called for \$1.5 billion in loans over five years for construction of classrooms and other academic facilities.

The subcommittee voted to divide the amount between loans and grants on a 60-40 basis, with \$900 million available for grants and \$600 million for loans.

Under the new grant provisions, the federal government would put up \$1 for every \$2 of outlays by the recipient institution or the state or local government operating it.

Representative Edith Green (D-Ore.), the subcommittee chairman, said the Administration supported the addition, but had not specifically endorsed the formula approved.

This bars federal loans or grants for construction of religious training facilities. However, sectarian colleges could qualify for aid to build facilities devoted to nonreligious education.

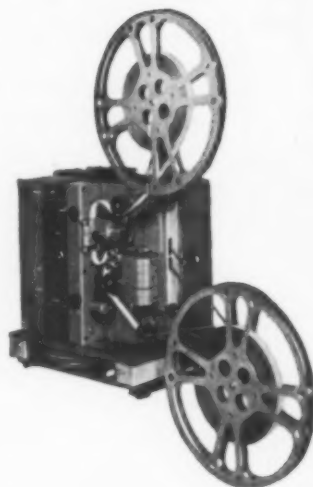
Eastern Association Revises Bylaws

BOSTON. — Certain institutions that previously could not qualify for membership in the Eastern Association of College and University Business Officers may now be eligible, according to a recent announcement.

The association, at its last annual meeting, voted to revise the bylaws relating to membership. Secretary-Treasurer Kurt M. Hertzfeld stated that "while we are not primarily interested in increasing our membership, we do feel that any business officer who might be eligible should not, through lack of knowledge of this change, be deprived of the benefits our association affords him."

The new bylaws provide that membership shall be limited to: all present members; those institutions granting the baccalaureate degree or higher that are accredited by their appropriate regional accrediting association; those institutions in Canada that are active members of the National Conference of Canadian Universities and Colleges.

Good reasons for RCA projector popularity!

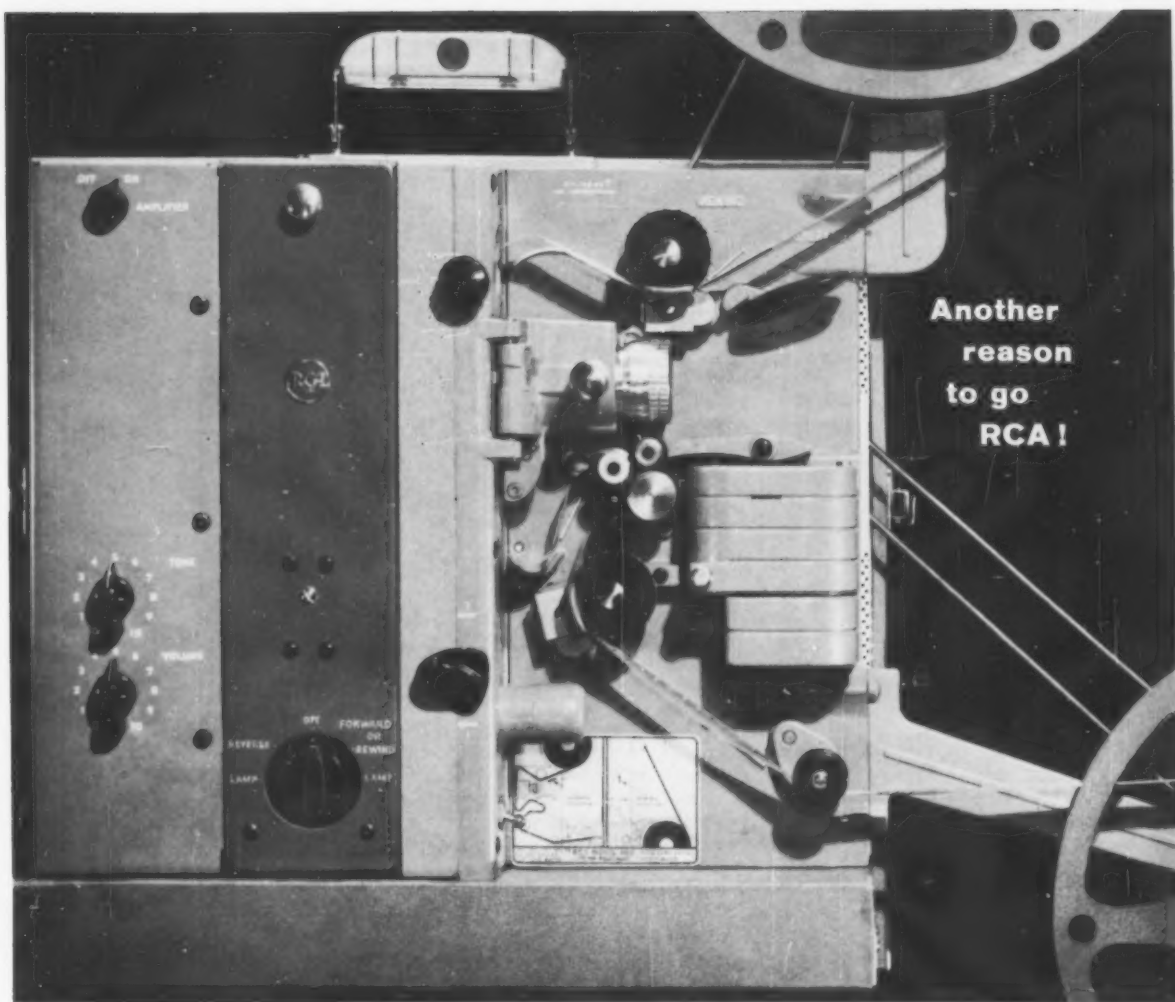


- "Life-Tested" — your assurance of projector quality!
- Easiest, fastest threading in the 16mm field!
- Whisper-quiet operation!
- Powerful 1200-watt lamp — throws 20% more light on screen!
- Built-in lubrication!
- Pressure guides are the "softest touch" in film handling!
- Nylon film pressure shoe — lasts 2 to 3 times longer!
- Superior sound reproduction!
- Longer operating life; minimum maintenance!

**Rigid endurance standards have been set for RCA "LIFE-TESTED" Projectors. Individual components as well as finished projectors are subjected to continuous testing to evaluate the durability and efficiency of all operating parts. "LIFE-TESTED" at RCA means better, more reliable performance from RCA Projectors.*



The Most Trusted Name
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RCA "LIFE-TESTED" PROJECTORS DON'T JUST CHANGE ...THEY IMPROVE

Here you see the "E" Series RCA "Life-Tested" 16mm Projector. Doesn't look much different, does it? That's because RCA believes in improving performance, not changing appearance. Simplicity, convenience and ease of operation have always been the criteria which determine whether changes will be made. And in the "E" Series numerous changes have been made which do improve performance.

Here are some examples of what we mean. New nylon film pressure shoe treats film extra gently, operates more quietly, lasts two to three times longer. New claw design accommodates new or old film with equal facility. New single switch reverse operation is quick, quiet and safe. New one-piece intermittent cam and gear replaces conventional three-piece assembly, reducing maintenance. New single switch action assures more convenient operation.

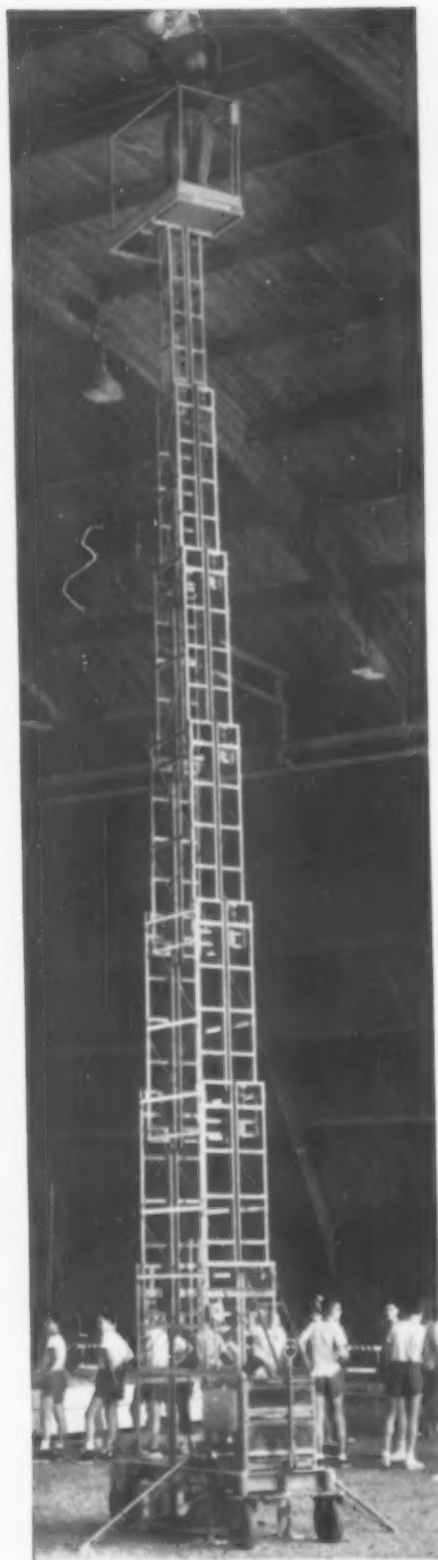
Changes such as these represent RCA's continuing effort to improve the performance and dependability of its projectors. No, we haven't changed the basic design, and with good reason. That's because this design affords you what is—and always has been—the *easiest threading film path of any projector on the market*. You'll be glad we kept it that way!

Be sure you consider the new features and the familiar ones . . . when your RCA Audio-Visual Dealer demonstrates these new "E" Series Projectors. He's in your Classified Directory under "Motion Picture Equipment and Supplies." Call soon and see for yourself.



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RISE UP TO MEET OVERHEAD SERVICE PROBLEMS

with a

HI-REACH TELESCOPER

The Economy Hi-Reach Telescoper shown here has a platform rise of 35 feet above floor level and a minimum lowered height to clear 7 feet. Through either of two push button-stations, the platform may be raised or lowered to any height in this range. The machine shown is used for servicing lights, unit heaters, and other overhead mechanical equipment, as well as for installation and decoration work.

The design and construction of the Hi-Reach Telescoper have been based on securing safe and convenient operation. For example, two lifting cables are used to raise and lower the platform, each cable completely capable of supporting the entire load by itself.

Also, while there are push button stations located both at the base and on the platform guard railing, they are interlocking so that the operator on the platform can inactivate the station below.

Other models available with platform elevations ranging from 10' 9" to as high as 95' above the floor.

Many Economy Hi-Reach Telescopers are being used today in gymnasiums, auditoriums, arenas, skating rinks and colleges throughout the nation.

Write for new catalog and information on the complete line of Economy Hi-Reach Telescopers

ECONOMY
ENGINEERING

4522 W. Lake St., Chicago 24, Ill.

NEWS

Student Escapes Ban on Automobiles

NEW BRUNSWICK, N.J. — Rutgers University freshmen are barred from keeping cars on the campus, but this regulation does not bother 18 year old Keith J. Mackey. The young freshman has his own plane, a Piper Vagabond, at near-by North Brunswick Airport.

While other freshmen board trains and buses for week-end trips home, young Mackey spends 15 cents for a bus ride to the airport and soon is on his way.

His destination usually is his home town, Elizabeth, but it is not unusual for him to head for Washington or to visit friends in Maine.

Study Illinois Students' Expenditures and Income

URBANA, ILL. — The average single student spent \$872 during the second semester last year to attend the University of Illinois, the board of trustees was told by Dean C. W. Sanford, admissions and records, and Prof. W. A. Neiswanger, department of economics.

The two reported results of a study of students' expenditures and income sources conducted during the 1960 spring semester by the committee on student economics.

The total sample included 933 undergraduate and graduate students. Of them, 713 submitted detailed records of income and expenses for each day of the semester, while 220 reported supplementary information.

The study indicated that almost half of the single student's expenditures — an average of \$410 — was for room and board.

Other average expenditures included \$140 for tuition and fees, \$87 for personal and medical care, \$78 for recreation, \$61 for transportation, \$44 for supplies, and \$52 for miscellaneous items.

The report also showed that one out of every four single students spent less than \$695 during the survey semester. The average expenditure in this lowest quarter was \$606. More than half of this amount (\$345) was for room and board, and \$109 was for tuition and fees.

Single students in the highest quarter of expenditures, on the other
(Continued on Page 90)

FOOD FOR THOUGHT



food fit for a king... from a machine

*Good food is only one reason why
many companies are switching to automated food service*

Americans' eating habits are changing. Shorter mealtimes are becoming the rule. There's a tendency to more snack-type eating at odd hours.

The ordinary solution to personnel and transient feeding—the leased or wholly owned cafeteria—provides only limited hours of service, and requires appreciable investment in space, man-hours and equipment.

These are some of the reasons why more and more factories, schools, offices and institutions are supplementing

or replacing facilities with Canteen® automated food service.

Canteen vending machines serve tasty, wholesome hot and cold foods, planned by dietitians for nutrition and appetite appeal. Snacks, hot and cold beverages, candy, cigarettes, as well as hot and cold meals, are immediately available day or night.

No wonder people like Canteen service. The food is appetizing—menus varied. There's no waiting in line, no crowding. And they can get service

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Management avoids the overhead costs involved in manual food preparation and service.

Canteen automated food service is available only from Automatic Canteen. It's nationwide, locally operated and managed, thoroughly reliable. For the whole story, call your Canteen representative today. You'll find his name listed in the Yellow Pages of your phone directory. Or mail the coupon for complete information.

DELICIOUS SNACKS AND COMPLETE MEALS,
prepared for modern tastes,
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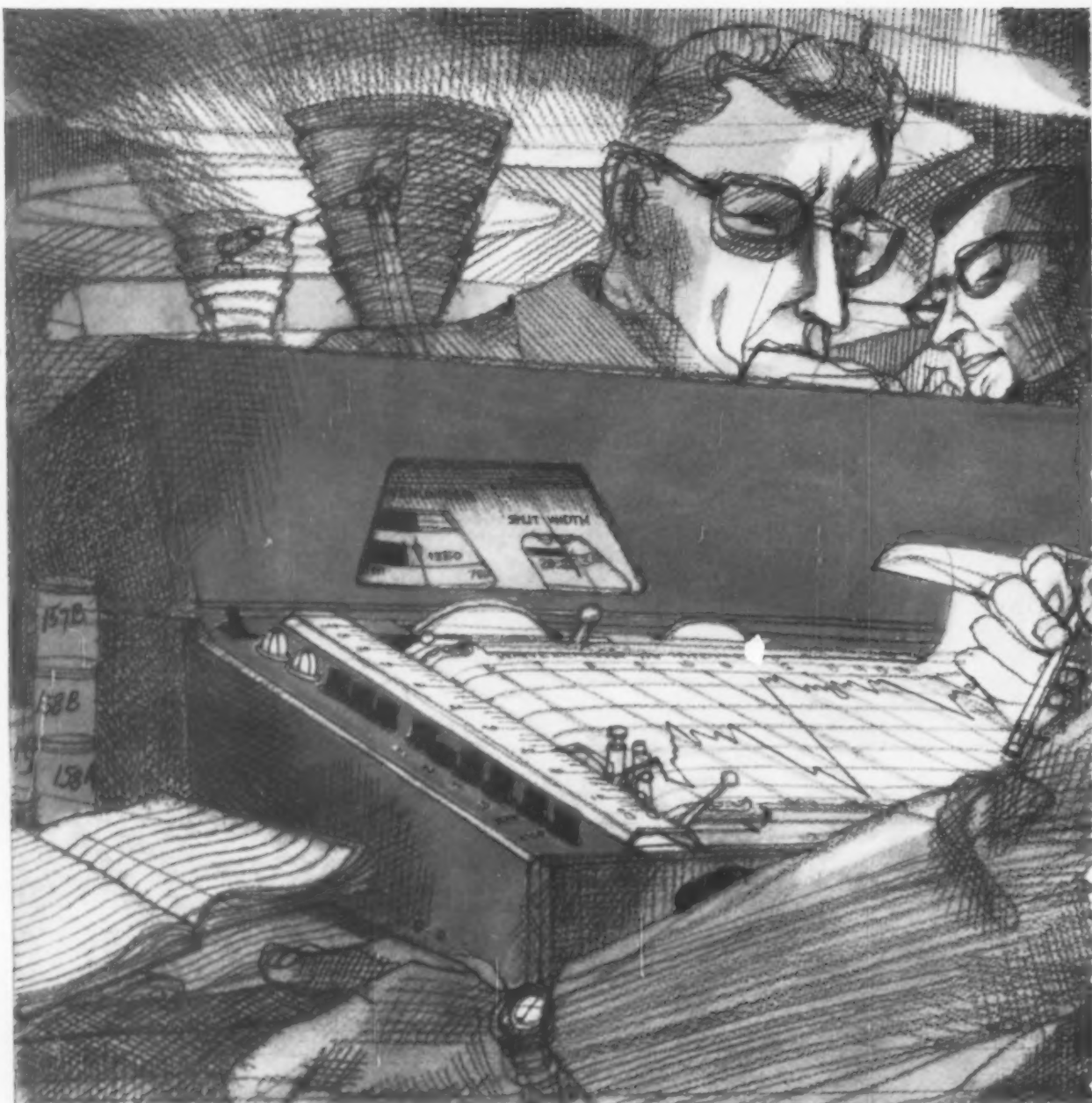
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Gentlemen: I'm interested in knowing what Canteen automated food service can do for us. Please send complete information.

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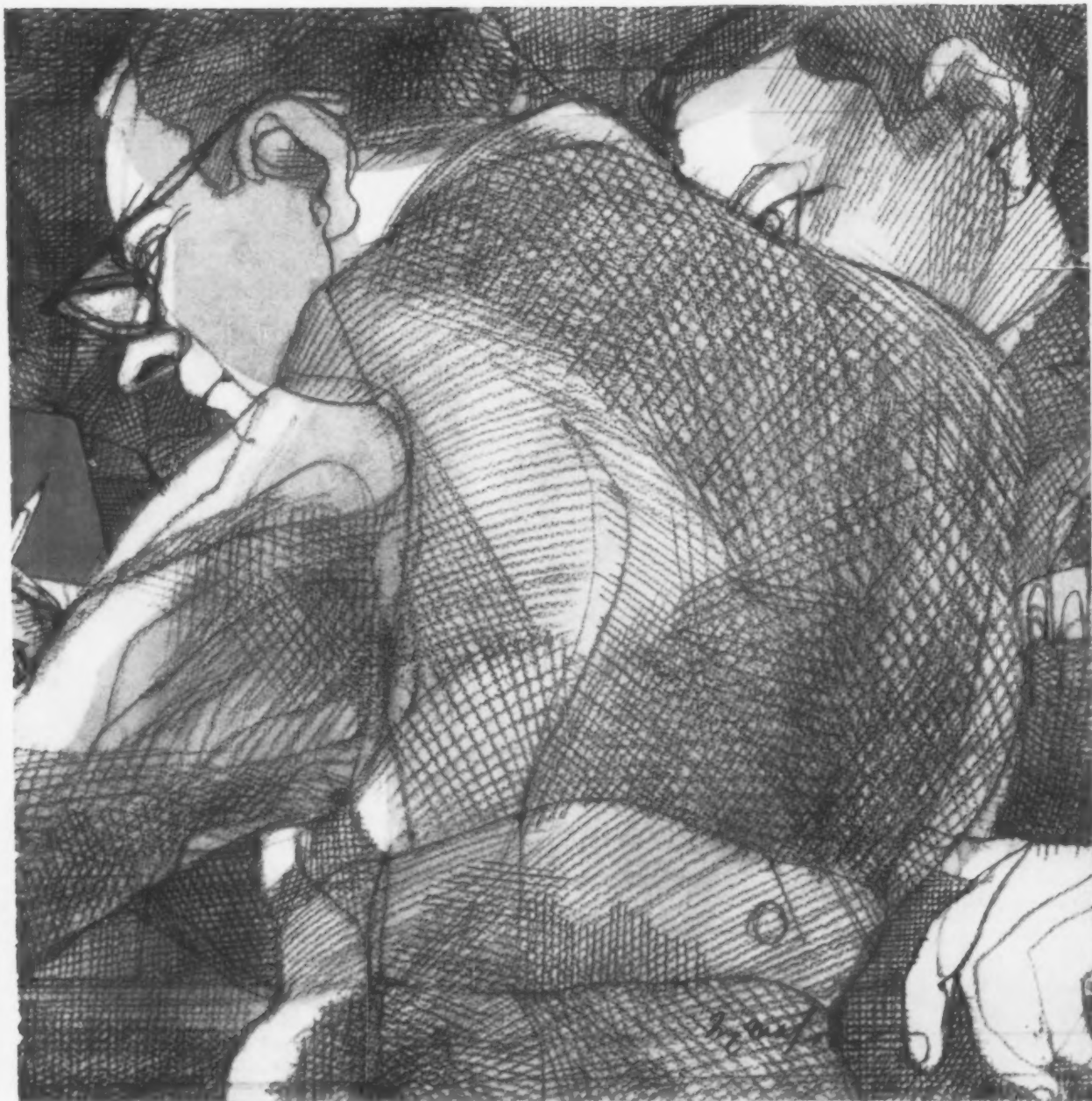
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cleaners and finishes every time. We use it, too, to keep tabs on how far ahead of competition we are—in improvement of present products, and in the development of new ones. ♦ The thoroughness of this machine is typical of the thoroughness that keeps Johnson's ahead. For example, in new products like WAXTRA!—a combination Wax and Polymer finish that is far lighter in color and has extra safety—yet is tough, long-lasting, glossy and buffable. Or the newest thing in cleaners—FORWARD. It's faster than any cleaner we've ever tested, and so good and so safe you've got to see it for yourself.

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AT YOUR MAINTENANCE PROBLEMS—and SOLVE THEM**

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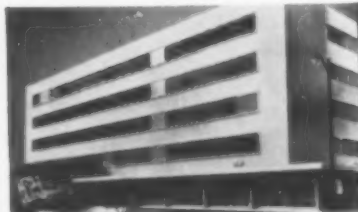
Business increased when this savings and loan company freshened the air in its formerly musty deposit box vaults.



High velocity system handles 87,000 cfm; 74,000 cfm is recirculated, 40% through B-C filters, at Houston Medical Towers.



\$12,000 was saved in heating installation for this church and school; heating costs cut \$1,650 per year, with B-C filters.



B-C permitted reducing outside air intake to 5% in this California Teachers Association building, Los Angeles.



Over 200 B-C filters handle 218,000 cfm in conjunction with electrostatic filters at this Dallas auditorium.



The characteristic aroma of a veterinary hospital is missing from this one, thanks to B-C activated charcoal.

activated charcoal air purification

Barnebey Cheney

NEWS

(Continued From Page 86)

hand, spent more than \$945 during the spring semester.

Students obtained revenue from three sources: (1) earnings from employment, scholarships, G.I. Bill benefits, grants-in-aid; (2) assistance from parents, relatives, friends, and (3) liquidation of assets, savings and loans.

The average single student received about equal amounts from each of these three sources, while the average married student received about four-fifths of his income from earnings. Married students spent twice as much (\$1734) as single students (\$872) during the sample semester.

Of the survey panel members 58 per cent of the single men and 44 per cent of the single women earned some income from employment. Seventy-eight per cent of the married students and 59 per cent of their wives also worked during the semester.

Further, four out of five panel members had worked during the preceding summer and had saved an average of \$400.

Results of the study indicated that cost of attending the University of Illinois increased with years of attendance. Explanations for this increase include that financially poorer students leave the university after a few semesters, that upperclassmen earn more from part-time employment and scholastic awards, and that more upperclassmen and graduate students than underclassmen are married and therefore have higher expenses.

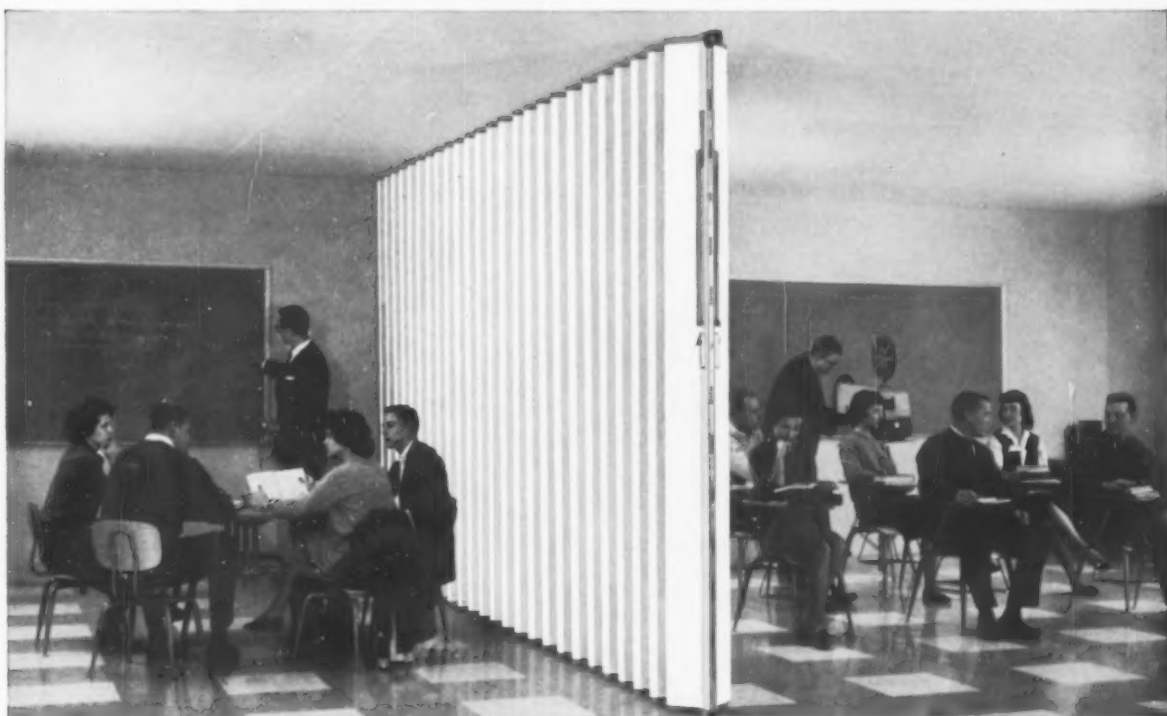
About 35 per cent of the students included in the survey panel reported they were in debt. Percentage of students in debt and size of the average debt also increased with the number of years of attendance at the university.

The median debt for married students was \$770, for single men \$600, and for single women \$350.

Dr. Kirk Discusses Finances at Columbia

NEW YORK. — The "Report From the President," released by Columbia University in April and signed by Grayson Kirk, president of the university, is the most detailed report (Continued on Page 93)

Certified* to shut out sounds other partitions let through



Furniture by Peabody

*Decibel ratings by Geiger & Hamme Laboratories per ASTM E90-55

New! Steel-Walled Modernfold

● *First in sound reduction . . . first in heavy-duty college design.* To divide large lecture rooms or student lounge areas, to split any living, classroom or activity area to double your use of existing space . . . you'll find this Soundmaster 240 by Modernfold rivals conventional walls in sound control, yet still gives you complete space flexibility.

The heart of Modernfold's sound superiority is in twin walls of steel panels beneath that luxurious vinyl . . . a dense, rigid barrier with eight sound-stopping horizontal edge seals custom-trimmed to the opening.

But this five decibel lead in sound control is only half the story. Because no other partition in the industry matches Modernfold heavy-duty construction. The chart at the right shows you why . . . comparing Modernfold's Soundmaster 240 with the *best* model offered by each of the next largest manufacturers.

Partition	"240"	"A"	"B"	"C"
*Sound Reduction 125/4000 cps av.	37.4	32.4	31.8	27.9
354/4000 cps av. (Industry Standard)	41.8	35.8	36.4	33.0
Acoustic Panels	steel 5½" wide, wt. 1 lb./sq. ft.	uses cardboard	steel, 2½" wide, wt. ½ lb./sq. ft.	uses cardboard
Sealer Strips	8	8	4	4
Foam-Lined Jamb-Seal	yes	yes	no	no
Air Release	yes	no	no	no
Pull-In Latch	yes	yes	no	no
Best Fabric Weight— Outside Covering Only	45 oz. per lin. yd.	45 oz. per lin. yd.	18 oz. per lin. yd.	27 oz. per lin. yd.
Top Row Horizontal Hinge Plate Depth	8½"	3"	(vertical)	1½"

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and Pyrex Sheathed Thermocouples.
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NEW CASTLE PRODUCTS, INC.
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Gentlemen: Please send full information on Soundmaster 240.

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BRING ON THE BRRRRAINS FROM REMINGTON RAND



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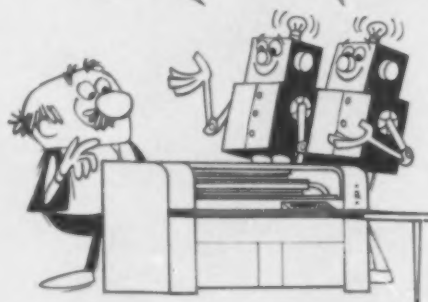
CAN'T WE DO SOMETHING
ABOUT OUR NOISY HERD OF
FILING CLERKS UPSTAIRS?!!

MAYBE THE BRRRAINS
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HAVE A SOLUTION...



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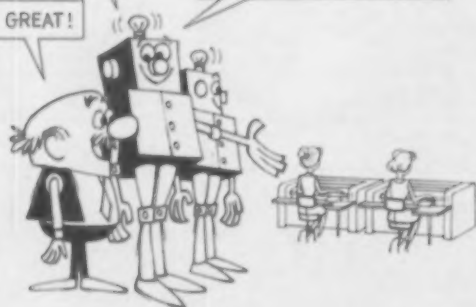
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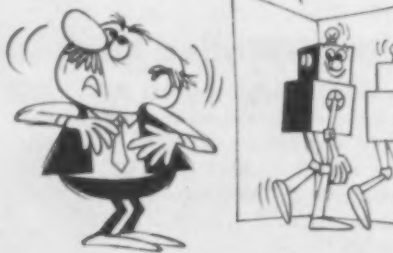
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NEWS

(Continued From Page 90)

published by the institution in recent years. In it, Dr. Kirk discusses current finances at the university and physical and nonphysical needs for the next six years.

The report is not the forerunner of a concerted, all-university drive for the needed funds. Columbia is decentralized in its fund raising. There are 15 schools or other units in each of which the dean or director, with a development officer, is responsible for the raising of funds. The report from the president is designed to serve all the 15 units by setting forth an overall picture of university activities and needs.

In the words of Dr. Kirk: "Colleges and universities must do more than they have yet done to make the general public thoroughly familiar with their financial problems and operations . . . if donors are to be expected to give to the institution the funds it asks." Nearly all of the 48 pages of the report are devoted to text, graphic material, and architects' renderings concerned with familiariz-

ing its readers with the situation, and illustrating the physical and other needs for the six years ahead.

Total expenditures for the year 1959-60 (July 1 to June 30) were \$57,747,265, the highest in the university's history. They reflect the growing costs of operation of an institution of higher learning in every category of expenditure relating to the instruction of students. Costs of teaching and educational administration have risen 40 per cent in the last six years. The cost of aid to students who need financial help to get through school has doubled in the same period. Buildings and grounds operation has gone up 25 per cent in the six-year span. Retirement and other employee benefits are costing the university nearly twice as much.

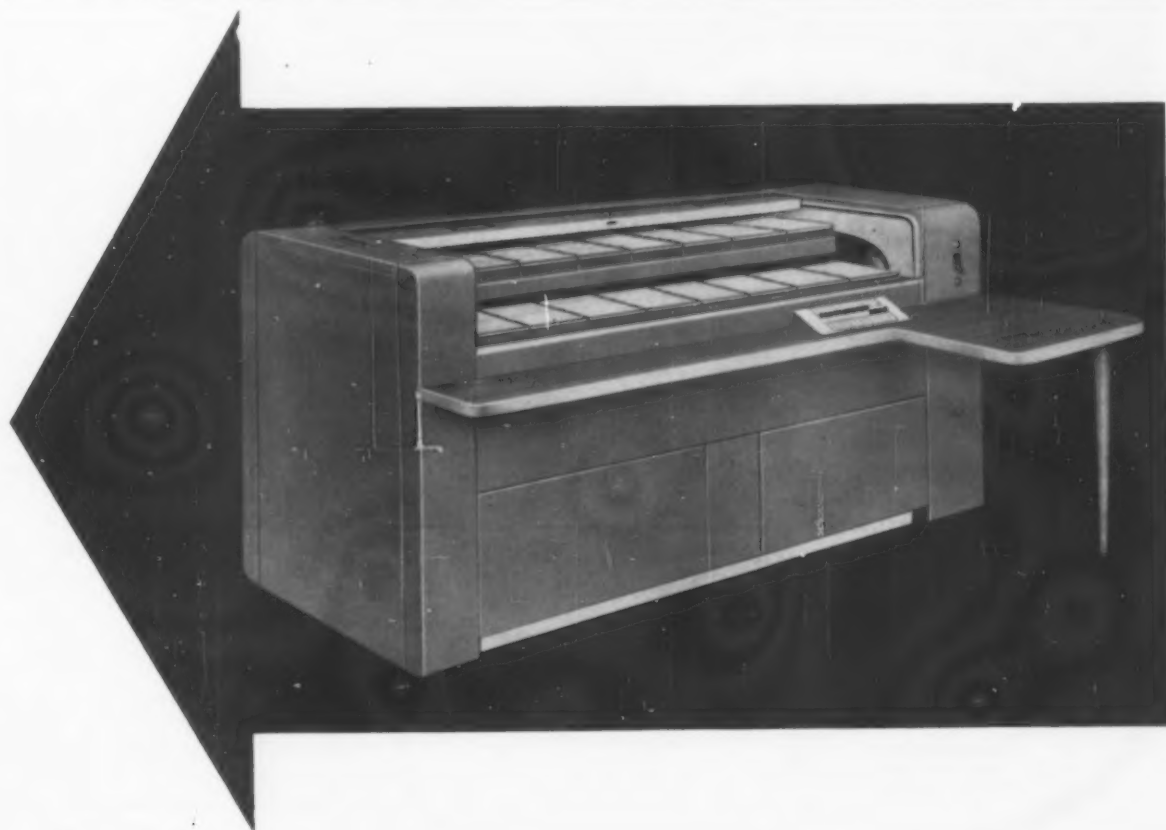
On the income side, revenues from student tuition reached a median rate of \$40 per semester hour in the 1960-61 academic year. In 1958, it was \$37. In 1935, it was \$10. Including students carrying varying course loads, today's student pays an average of \$1243 per year, but this is less

than 40 per cent of the total cost of educating him. Endowment and investment income expended by the university in the 1960 fiscal year was \$10,211,617. Six years ago it was \$7,100,095. Gifts to the university for current and specific uses totaled \$8,932,643 in 1960, as compared with \$4,204,827 in 1955.

These figures show that of the instructional dollar, 68.6 per cent goes to teaching and educational administration, 7.4 per cent to student aid, 5 per cent to libraries, 9.1 per cent to the operation of buildings and grounds, 7 per cent to retirement and employee benefits, and 2.9 per cent to business and financial administration.

They show that the instructional dollar is made up of 39 per cent of tuition and other student fees, 29.2 per cent of endowment and investment income, 25.5 per cent of gifts for current and specific purposes, and 6.3 per cent from clinics and hospitals.

Research activities of the university, the president's report shows, are currently carried on at an annual rate of \$5 million with gifts and grants from



nongovernment sources. Federal government sponsored research contracts and grants have reached an annual rate of something over \$20 million. (This figure was \$9,470,313 six years ago.) It is pointed out that the university derives no income from its government contract work, it being reimbursed only for the amount of direct costs involved in carrying out the project.

NAMES IN THE NEWS

Donald E. Smith, director of university relations at the University of

Rochester, Rochester, N.Y., has been appointed to the newly created post of vice president for university relations.



R. D. Strathmeyer

July 1. Mr. Strathmeyer is currently assistant vice chancellor for busi-

ness affairs and treasurer at the University of Buffalo, Buffalo, N.Y.

ness affairs and treasurer at the University of Buffalo, Buffalo, N.Y.

Dr. James L. Wyatt has been named vice president for program development at the Armour Research Foundation of Illinois Institute of Technology, Chicago.

Dr. R. B. Stewart, vice president and treasurer of Purdue University, Lafayette, Ind., will become vice president and general manager of the Purdue Research Foundation and a professor of industrial management on July 1. Winfield Hentschel of the Foundation organization will become treasurer of the Foundation and J. R. Lowe will become secretary. Dr. Stewart's successor as vice president and treasurer of the university has not been announced.

Dr. Kenneth

H. Moore, professor of physics, Rensselaer Polytechnic Institute, Troy, N.Y., has been named chairman of the national Ad-



Kenneth H. Moore

vanced Placement Examining Committee in Physics of the College Entrance Examination Board.

Dr. LeRoy E. Burney, former United States surgeon general, has been appointed by Temple University, Philadelphia, to the newly created post of vice president for the health sciences.

Dr. Robert W. Van Houten, president of Newark College of Engineering, Newark, N.J., has been elected president of the American Society for Engineering Education.

Dr. John A. Fuzak, assistant dean in charge of administrative services in the Michigan State University College of Education, Lansing, has been named dean of students, succeeding Tom King, who will retire July 1.

The Very Rev. John R. Cortelyou, C.M., chairman of the department of biological sciences at DePaul University, Chicago, has been named to a new administrative post at the institution. He will become the coordinator for science study and research.

Reinald McCrum, formerly director of development at Skidmore College, Saratoga Springs, N.Y., is the new secretary of Chatham College, Pittsburgh. He assumed his new duties on June 1.

Humphrey Doermann, Minneapolis newspaperman, will become di-



Installation of two Super Troupers at the Berkeley High School, Berkeley, California.

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rector of admissions at Harvard Col-
lege, Cambridge, Mass., on July 1.

Daniel E. Sullivan, manager of
the Providence College Bookstore,
Providence, R.I., was named "Man-
ager of the Year" at the annual con-
vention of the National Association
of College Stores in Miami Beach.

Tredwell H.

Hopkins has been
appointed con-
troller of New
York University.
Mr. Hopkins,
who has been as-
sociated with the
university for al-
most 27 years, has been acting con-
troller since 1960.



T. H. Hopkins

Wolcott A. Hokanson Jr., bursar
of Bowdoin College, Brunswick,
Maine, has been appointed executive
secretary of the college. On July 1
he will assume the duties of Bela
W. Norton, vice president, who is
retiring.

Dr. John Perry Miller, professor
of economics at Yale University, has
been named dean of the Yale Grad-
uate School. He will succeed Dr.
Hartley Simpson on July 1. Dr.
Simpson will devote full time to re-
search and writing.

Dr. Herbert E. Longenecker was
recently installed as the 11th presi-
dent of Tulane University, New Or-
leans.

Ben F. Johnson, a member of the
faculty of Emory University, At-
lanta, for 14 years and since 1955
a Special Assistant State Attorney
General, has been appointed dean
of the institution's Lamar School of
Law. Dr. George H. Moulton, head
of the university dental clinics and
a faculty member since 1955, has
been named dean of the dental school.

E. J. Junior Jr. has been appointed
controller of Albany State College,
Albany, Ga. He was formerly busi-
ness manager at Livingstone College,
Salisbury, N.C.

Erwin N. Griswold, dean of the
Harvard Law School, and Spotts-
wood W. Robinson 3d, dean of the
Howard University Law School, were
named recently to the U.S. Civil
Rights Commission.

Maj. Gen. Clement F. St. John,
the commanding general of Walter
Reed Army Medical Center, Wash-
ington, D.C., has been elected a
vice president of the University of

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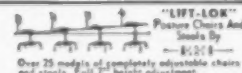
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M. Klebenoff

Milton Klebenoff, acting bursar of New York University, has been named bursar of New York University. Mr. Klebenoff joined the N.Y.U. staff in 1958 as manager of financial analysis in the bursar's department. Last August he was promoted to acting bursar.

Margaret Habein, dean of the college of liberal arts and sciences of the University of Wichita, Wichita, Kan., has been appointed director of admissions at Radcliffe College, Cambridge, Mass. Miss Habein will succeed Mrs. Phillips Farrington, acting director, on September 1.

Dr. Richard H. Heindel, former president of Wagner College, Staten Island, N.Y., has been appointed president of Pratt Institute, Brooklyn. He succeeds Dr. Robert Fisher Oxnam, who is now president of Drew University, Madison, N.J.

Dr. Buell G. Gallagher, president of City College, New York, for the last eight years, has been appointed the first chancellor of California's State College system. The system, comprised of 15 four-year colleges, has a total enrollment of 96,000 students. No announcement has been made concerning Dr. Gallagher's successor.

Dr. Paul Langdon Ward was inducted as the fifth president of Sarah Lawrence College, Bronxville, N.Y., last month. Dr. Ward succeeds Harrison Tweed, who served as president in 1959-60.

Dr. I. I. Rabi, professor of physics at Columbia University, New York, was elected president of Associated Universities Inc., a nonprofit organization responsible to the federal government for scientific work and sponsored by nine Eastern universities.

William L. Swartzbaugh, dean of students at the University of Pittsburgh, will assume the duties of associate dean at Amherst College, Amherst, Mass., on July 1. He succeeds William M. Dietel, who resigned to become headmaster of the Emma Willard School in Troy, N.Y.

Donald A. Bullard has been named director of the New York University Foreign Student Center. His appointment will become effective September 1.

Marcus Robbins, controller of Yale University and a member of the university's staff for 27 years, will retire at the end of this month. Mr. Robbins went to Yale in 1934 as the university's auditor. In 1940 he became assistant treasurer, a post he held seven years before becoming controller.

The Very Rev. Robert J. Slavin, president of Providence College, Providence, R.I., died of a heart attack recently. He was 54 years old.

Dr. George Johnson, retired dean of Lincoln University, Lincoln, Pa., died recently. He was 88 years old.

Dr. Fred S. Hultz, president of North Dakota State University, Fargo, died of a heart ailment. He was 67 years old.

A. Howard Meneely, president since 1944 of Wheaton College, Norton, Mass., died May 13, at the age of 62. Dr. Meneely, who had undergone surgery in December, had planned to retire this month.



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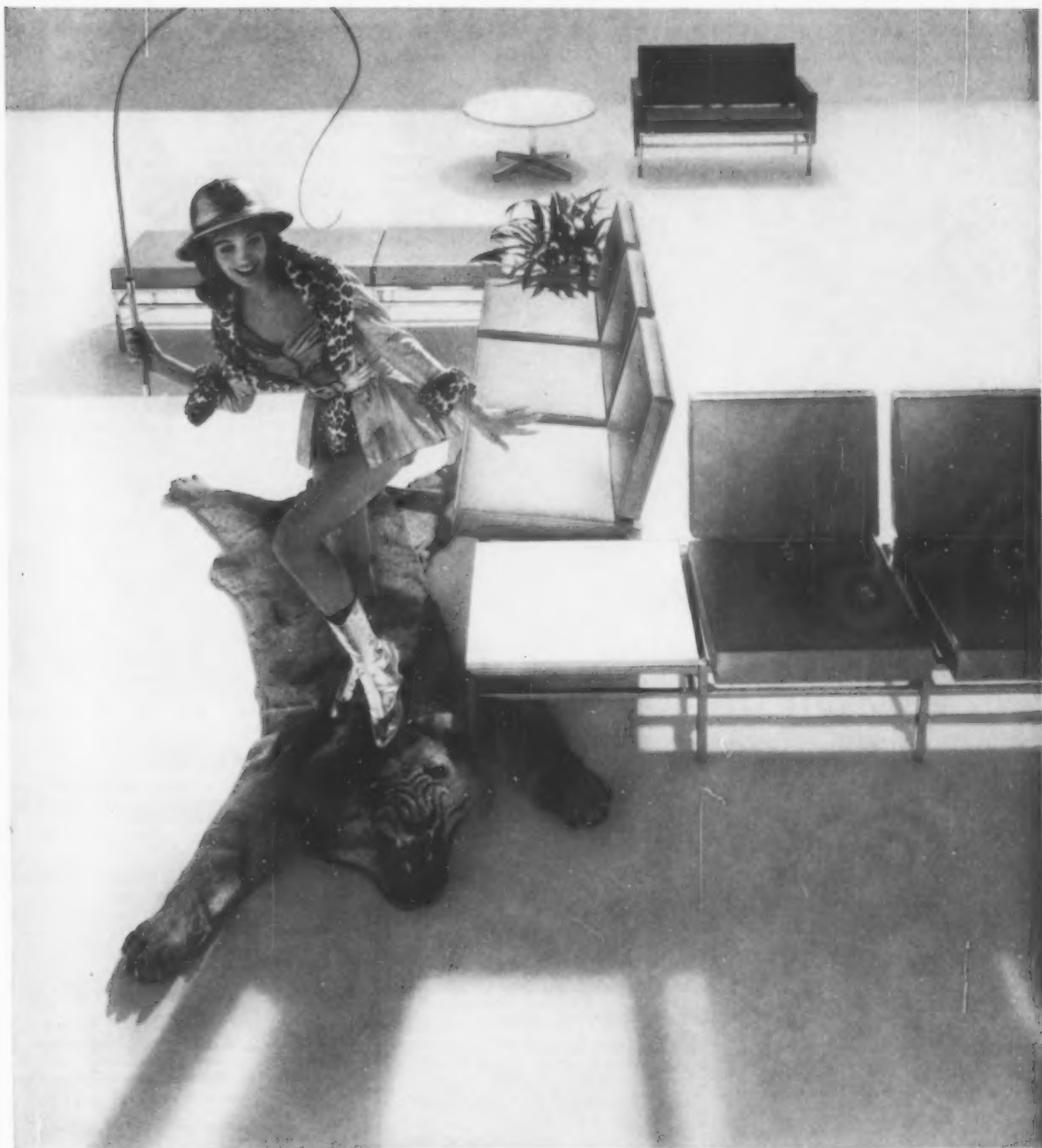
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National Association of Physical Plant Administrators of Universities and Colleges

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Convention: July 3-7, Oregon State College, Corvallis.

American College Public Relations Association

President: Lyle M. Nelson, University of Michigan; executive director: Frank L. Ashmore, 1785 Massachusetts Ave., Washington 6, D.C.

Association of College and University Housing Officers

President: Fred A. Schwendiman, Brigham Young University; secretary-treasurer: A. Thornton Edwards, Kansas State University. Convention: July 30-Aug. 3, Columbia University.

National Association of College Stores

President: C. Paul Irvine, Oregon State College Cooperative Association, Corvallis, Ore.; general manager: Russell Reynolds, 55 East College Street, Oberlin, Ohio.

National Federation of College and University Business Officers Associations

President: Charles H. Wheeler III, University of Richmond; secretary: Kenneth Dick, University of Idaho.

Canadian Association of University Business Officers

President: M. C. Tillotson, Queen's University; secretary-treasurer: D. S. Claringbold, treasurer, Hart House, University of Toronto.

Associations of College and University Business Officers

American Association

President: I. T. Creswell, controller, Fisk University, Nashville, Tenn.; secretary: C. E. Prothro Jr., Tuskegee Institute.

Convention: May 3-5, 1962, Fisk University.

Central Association

President: Harlan Kirk, Michigan State University, East Lansing, Mich.; secretary-treasurer: James J. Ritterskamp Jr., Washington University, St. Louis.

Eastern Association

President: Richard D. Strathmeyer, University of Buffalo; secretary-treasurer: Kurt M. Hertzfeld, Boston University.

Convention: Dec. 3-5, The Warwick, Philadelphia.

Southern Association

President: C. L. Springfield, Southwestern at Memphis; secretary: Clarence Scheps, Tulane University.

Western Association

President: Robert B. Gilmore, California Institute of Technology; secretary: H. S. Thomson, University of California, Santa Barbara.

Convention: April 29-May 2, 1962, Mark Thomas Inn, Monterey, Calif.

National Association of Educational Buyers

President: Bruce Partridge, University of Delaware; executive secretary: Bert C. Ahrens, 1461 Franklin Ave., Garden City, N.Y.

Association of College Unions

President: Floyd I. Brewer, University of Cincinnati; secretary-treasurer: Edgar A. Whiting, Cornell University; editor of publication: Porter Butts, University of Wisconsin.

Convention 1962: Purdue University, West Lafayette, Ind.

College and University Personnel Association

President: Charles T. Clark, University of Texas; executive secretary: Donald E. Dickson, University of Illinois. Permanent headquarters, 605 S. Goodwin Ave., Urbana, Ill.

American Alumni Council

President: George J. Cooke, Princeton University; executive director: Ernest T. Stewart, 1785 Massachusetts Ave., N.W., Washington 6, D.C.

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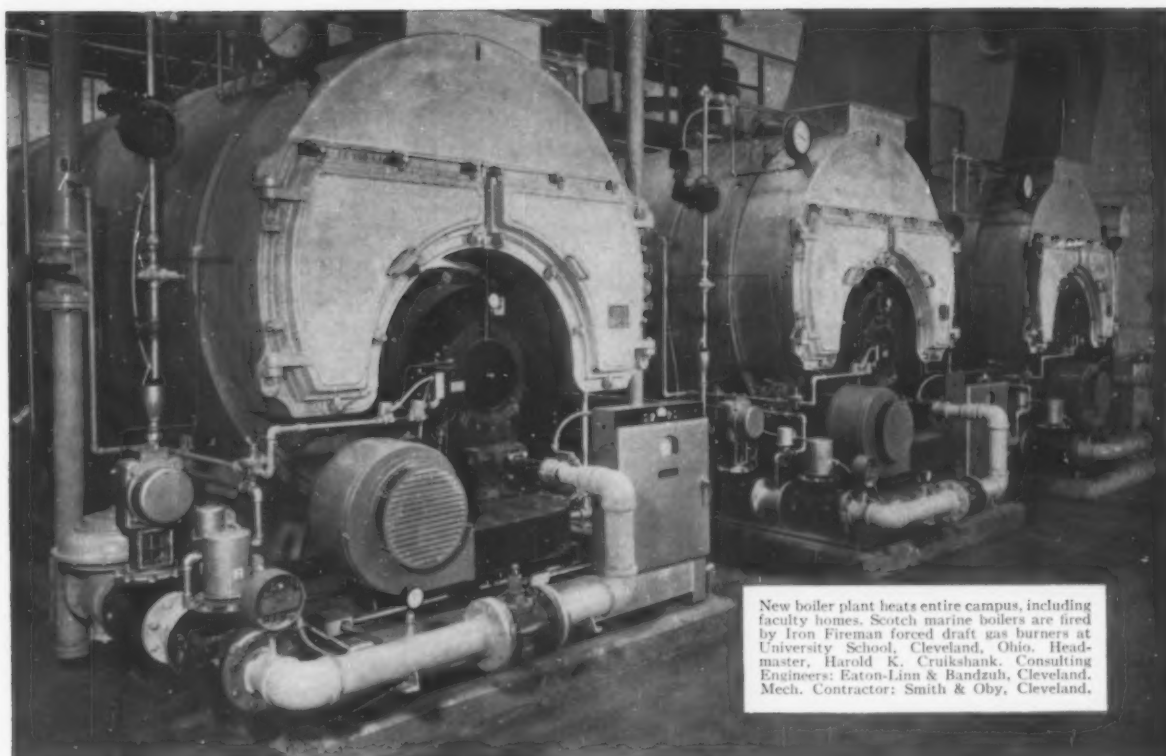
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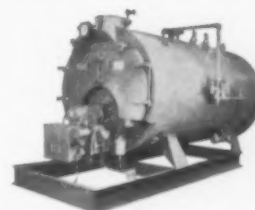
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Business Manager — Nine years experience all phases of college business management; five years assistant business manager in medium-sized university; age 34, married, two children; B. S. Degree business administration. Write to Box CW 617, COLLEGE AND UNIVERSITY BUSINESS.

Business Manager — Three years auditor of college of 2,600; experienced in accounting procedures, purchasing, budgets, auxiliaries, plant, non-academic personnel; BS Accounting, lack thesis on Masters. Write to Box CW 620, COLLEGE AND UNIVERSITY BUSINESS.

Business or Administrative Officer — MBA Degree plus other graduate study; 3 years college level teaching; over 20 years experience in conference leading, supervision, systems analysis, budgeting, programming, inventory control, accounting and management. Write to Box CW 622, COLLEGE AND UNIVERSITY BUSINESS.

Director, University Press or Services — Age 47; ten years experience in fund raising, public relations, bookstore management, post-office, and auxiliary services; familiar with budget preparation, trustee reports and comptrollership. Write to Box CW 618, COLLEGE AND UNIVERSITY BUSINESS.

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Bursar — Private professional school, metropolitan New York, 2300 full-time, 2,000 part-time students; experience in institutional accounting required; good salary, many fringe benefits. Send resume to Box CO 401, COLLEGE AND UNIVERSITY BUSINESS.

Business Manager, Controller — For small, east Texas college; prefer BA Degree with educational accounting experience; complete charge of accounting, budget controls and business management; excellent opportunity with a fast growing college for ambitious young man with drive. Send resume, with photo, to LeTOURNEAU COLLEGE, P.O. Box 2307, Longview, Texas. Attention: E. L. Thaxton.

Dietitians — (4) expanding food service department; college Degree in Institutional Food Management and one year top supervisory experience required; salary \$5350-\$6688; excellent advancement opportunities, retirement, social security, sick leave, excellent vacation, 5-day week. Apply to Gilbert P. Volmi, Director, University Food Service, UNIVERSITY OF MARYLAND, College Park, Maryland.

Director of Food Service — (Male) for church-related co-educational college of 1000 students; campus located at Liberty, Missouri, fifteen miles from Kansas City; centralized food service in new student union building, main cafeteria dining room services up to 500 students daily; snack bar in same building serves commuting students; catering service within building included in scope of responsibilities; formal training in food management with experience in college work desired; salary open. Send complete resume with photograph to John A. Pond, WILLIAM JEWELL COLLEGE, P.O. Box 164, Liberty, Missouri, or telephone Kansas City, Missouri, THornwall 7-4560, extension 12 or 22.

Food Service Director — Medium sized, private, liberal arts college, located 30 miles north of Chicago; interested in food service director with 5 years experience in college food service, and Degree in Dietetics, or Institutional or Restaurant Management; attractive salary and benefits. Write to Box CO 404, COLLEGE AND UNIVERSITY BUSINESS.

Food Service Director — Woman preferred; experience in all phases of college food service; new cafeteria; one dining room, 700; second dining room, 400; third dining room, 200; day and evening session; no dormitories, many special functions; vicinity of New York City. Submit salary requirements and complete resume of experience, education and personal data to Box CO 399, COLLEGE AND UNIVERSITY BUSINESS.

Food Service Manager — Salary range \$7176-\$8724 per year; college graduate with training in institutional management or dietetics, with at least three years experience managing food service operation; in charge residence halls food service program on a growing campus that will probably double in five years; retirement, vacation and sick leave benefits. Contact Mr. Leo M. Anderson, Employment Representative, Personnel Office, UNIVERSITY OF CALIFORNIA, Davis, California.

Food Service Supervisor — To supervise 40 to 50 employees in a new food service unit with completely modern equipment, beginning September 1, 1961; paid vacation, sick leave, group life insurance, group rates for Blue Cross-Blue Shield coverage, non-contributory pension plan, workman's compensation, meals furnished while on duty, uniforms laundered by university; forty-hour work week; excellent possibility for year-round employment; excellent working conditions in pleasant university atmosphere on main line of Pennsylvania Railroad halfway between New York and Washington; must have college Degree in Institutional or Restaurant Management. Contact Mr. Donald G. Bickert, Director of Food Service, UNIVERSITY OF DELAWARE, Newark, Delaware.

Food Service Supervisors — A large educational institution in Pennsylvania has openings for men and women with or without food service experience; must have Degree in Home Economics, Hotel Management or related field; the openings exist because of the opening of a new dining hall operation; orientation training provided; liberal benefits programs, ideal living conditions, challenge and opportunity for advancement. For complete details write to Box CO 369, COLLEGE AND UNIVERSITY BUSINESS.

Internal Auditor and a Senior Accountant — Needed immediately; openings due to expansion; Social Security retirement and other staff benefits; replies confidential. Send resume and indication of salary required to Roy V. London, Jr., Director of Personnel, UNIVERSITY OF NEBRASKA, Lincoln, Nebraska.

Junior Accountant — College Degree with major in Accounting; age to 30; salary \$4800. Send resume to Assistant Comptroller, ARIZONA STATE UNIVERSITY, Tempe, Arizona.

Purchasing Agent — Leading private mid-western institution is seeking a man thoroughly experienced in college purchasing including research, technical equipment and new construction; will have complete charge of purchasing function; liberal salary and fringe benefits; moving allowance. Please send resume to Box CO 405, COLLEGE AND UNIVERSITY BUSINESS.

Relief Food Production Manager — In mid-west school of 7,000; full responsibility for the supervision in three residence halls alternating between managers' days off; excellent opportunity for advancement; salary \$375 — \$425 per month. Write to Box CO 403, COLLEGE AND UNIVERSITY BUSINESS.

Union Director — For new union at smaller middle-east college; qualified to engage staff, develop program and assume complete administration of union; desire personable and enthusiastic person having leadership qualities; previous successful union experience highly desirable. Send resume to Box CO 402, COLLEGE AND UNIVERSITY BUSINESS.

George Washington never slept on a Serta "Perfect Sleeper"® Mattress, but...

... he did address the students from this porch of Old North Dormitory, where Georgetown University students sleep on Serta "Perfect Sleeper" Mattresses.

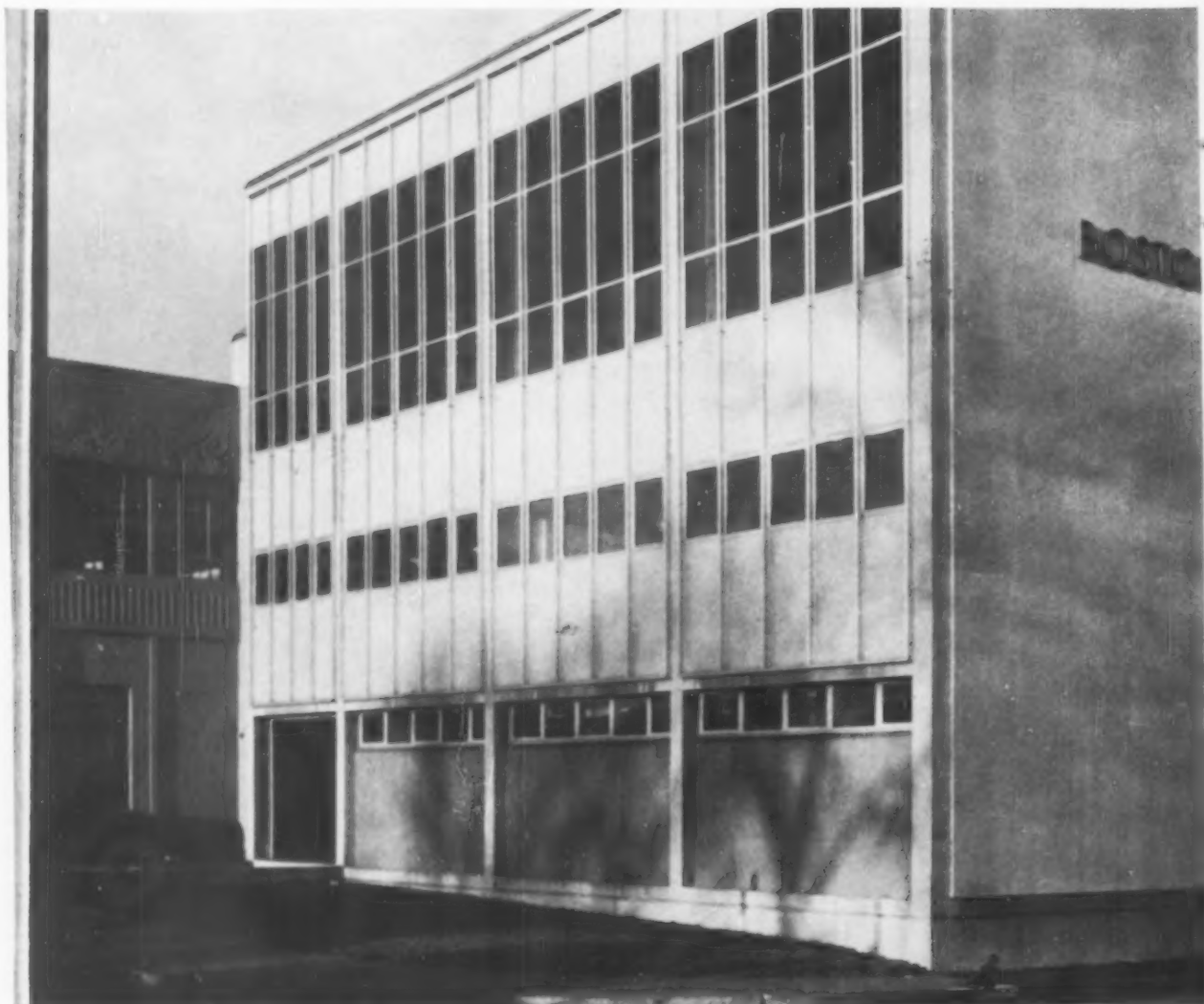
And satisfactorily, too—according to Brother Francis J. Weiss, S. J., Georgetown University Maintenance Administrator:

"We find that Serta 'Perfect Sleeper' Mattresses have held up very well under dormitory use. Our Kober Cogan Dormitory has not had one replacement in three years. We are more than pleased with the product and put our approval on this item."

You get long-lasting comfort in the Serta "Perfect-Sleeper" Mattress. Exclusive Sertaliner construction resists sinking, sagging —helps prevent Fatigue Build-Up. The smooth-top Serta "Perfect Sleeper" makes up easily, always looks trim.

For information, write: Serta Associates, Inc., American Furniture Mart, 688 Lake Shore Dr., Chicago, Ill.





Proof of New England Practicality:

LUPTON aluminum curtain walls at Boston University

Boston University's new Sargent Gymnasium provides an interesting example of the way you can solve problems of appearance, costs, and space with LUPTON Aluminum Curtain Walls.

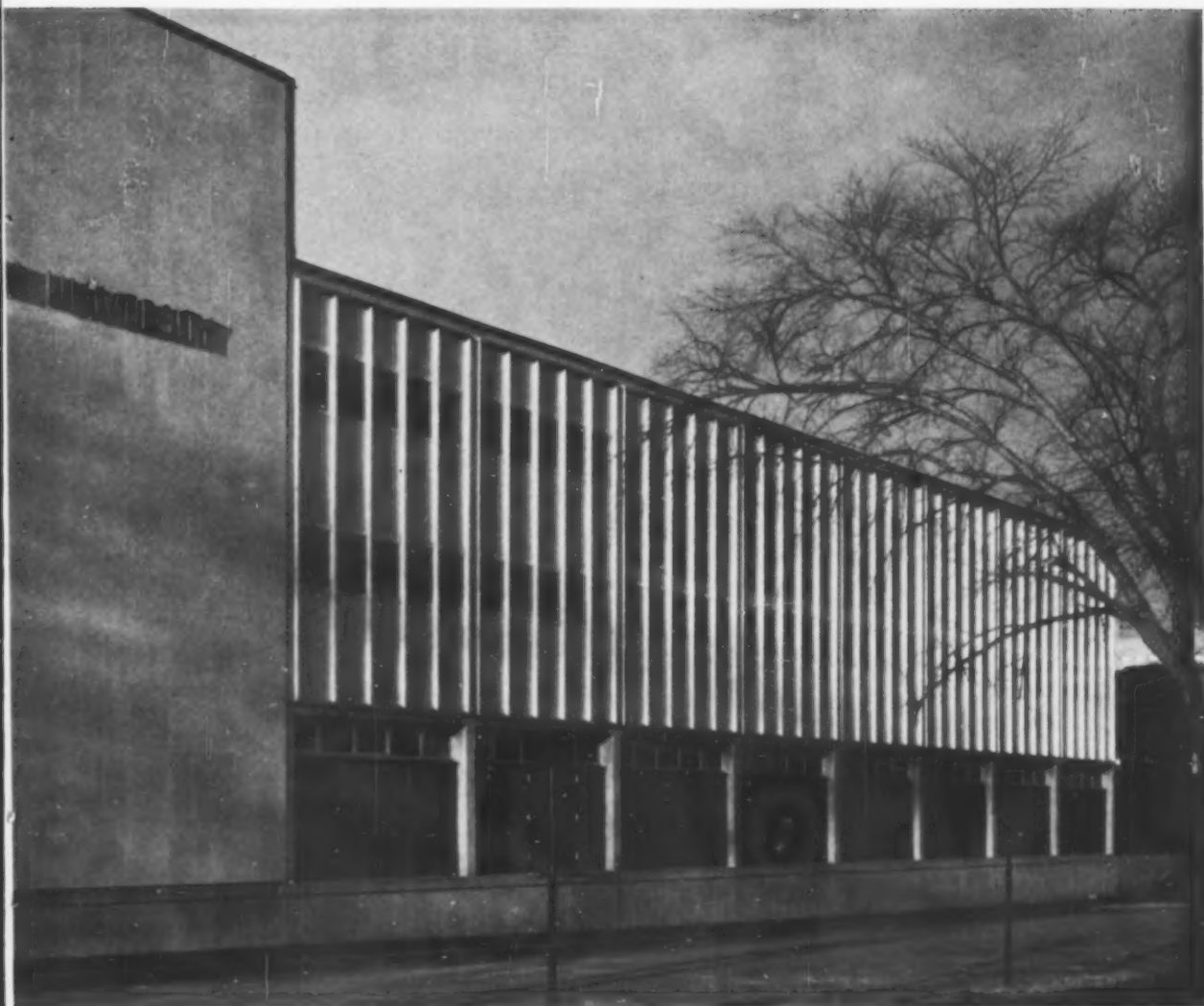
As shown in the photograph, LUPTON Curtain Wall forms a strikingly modern exterior, typifying the spirit of this great university. It also aids in boosting student morale by admitting a maximum amount of natural daylight into the gymnasium's interior. The wall panels are an attractive gray, selected from a practically unlimited range of permanent colors.

LUPTON couples these dramatic effects with thrift and practicality. Your initial investment in these modern curtain walls is modest. The light weight of aluminum permits a lower foundation and framework expense. LUPTON wall units go up swiftly, too. You can put your building to work much sooner than if conventional materials were used.

LUPTON craftsmanship assures peace of mind. LUPTON assumes full responsibility for manufacture *and* assembly. Precision-made components fit tightly and align accurately under the watchful eyes of experienced field supervisors.

After installation, LUPTON Aluminum Curtain Walls continue to pay you dividends year after year. This rigid thin wall construction allows you maximum usable interior space. Maintenance is virtually non-existent.

See Sweet's (Sections 3 and 17) for the LUPTON Aluminum Curtain Wall and Window catalogs, and write for further specific information. Inquire about LUPTON Comfort Conditioning*—the new curtain wall system that cools, heats, and ventilates. A call to the nearest LUPTON representative (see the Yellow Pages under "Windows-Metal") will bring fast action without obligation.



Sargent Gymnasium, Boston University, Boston, Mass. Architect: Edwin T. Steffian, Boston, Mass.
Contractor: George B. H. Macomber Co., Boston, Mass.

OTHER LUPTON PRODUCTS THAT MAY SOLVE PROBLEMS FOR YOU ARE:

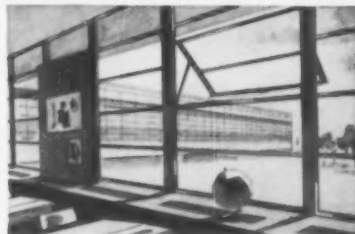


Comfort Conditioning.* LUPTON air-to-air heat-pump, electrically operated, puts a personalized cooling, heating and ventilating system right in the curtain wall . . . provides year 'round comfort with individual temperature control.

*Trade Mark



Double Hung Windows. LUPTON DH-A2 aluminum double-hung windows are custom built for installation in masonry construction or metal curtain walls. Woven-pile weather-strip and barrel type suspension give smooth operation and weathertight closing.



Projected Windows. LUPTON "Master" windows in projected or casement types—used equally well in curtain walls or in masonry construction. Tubular ventilator members for extra rigidity . . . double weather-stripping, bronze hardware.

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- 5 DuBOIS SETS THE PACE giving all the advancements of a research staff dedicated to formulating better cleaners for you.
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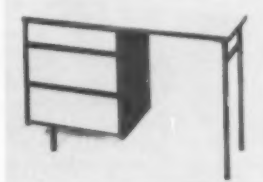
Edited by Bessie Covert

WHAT'S NEW

TO HELP you get more information quickly on the new products described in this section, we have provided the postage paid card on page 119. Circle the key numbers on the card which correspond with the numbers at the close of each descriptive item in which you are interested. COLLEGE and UNIVERSITY BUSINESS will send your requests to the manufacturers. If you wish other product information, just write us and we shall make every effort to supply it.

Mark 20 Dormitory Desk Has Plastic Top and Front

Wood-grained plastic is used for the tops and drawer fronts in the new Mark 20 dormitory desk. The Hard welded metal frame construction, assuring rigidity and years of trouble-free service, pro-



vides a smooth unbroken surface, eliminating crevices and facilitating maintenance. Permanently bonded to steel, the plastic tops and fronts are offered in 13 cheerful decorator colors blended with wood-grained plastic for attractive, homelike appearance. Finger tip drawer pulls eliminate the necessity of hardware, which might be loosened and lost. The desk is available with either left or right hand drawer arrangements and is 44 or 48 inches wide and 17 1/2 inches deep. The Hard Mfg. Co., Box 427, Buffalo 7, N.Y.
For more details circle #591 on mailing card.

Cafeteria Display Case For Frozen Desserts

Designed especially for use in cafeterias, the new Bally Cafeteria Ice Cream Merchandiser permits display of ice cream and other frozen desserts so that they can be picked up without having to be served. Even sundaes and plates of ice cream can be made up in advance and still retain their appetizing appearance for hours



when displayed in the new case. Known as Model CAFI-36, it is completely clad in stainless steel inside and out and is designed to fit into both existing and new cafeteria line-ups. A storage compartment in the base holds reserve stock near the rugged but quiet-operating Copeland condensing unit. Model CAFM-36 is a matching case for the display of milk. Bally Case & Cooler, Dept. NR-7, Bally, Pa.
For more details circle #592 on mailing card.

Boiler Cleaner and Conditioner In Capsule Form

Crest "Jiffy Caps" are a new Boiler Cleaner and Conditioner in capsule form which dissolve instantly to attack and dissolve oil, grease and sludge within the system. The gelatin capsule contains a soluble formula with added cleaning power which aids in reducing cleaning time and product cost, and also removes rust and scale from the boiler. Crest Mfg. Co., 4-65 48th Ave., Long Island City 1, N.Y.
For more details circle #593 on mailing card.

RCA 501 Computer Processes Entrance Exams

An all-transistor RCA 501 is now used with a magnetic tape memory in the processing of college entrance examinations and other testing programs. Working with electronic scoring and transcribing machines, the computer system speeds results and has the capability of processing 6000 test papers an hour. Radio Corp. of America, 30 Rockefeller Plaza, New York 20.

For more details circle #594 on mailing card.

Mobile Language Lab Housed in Trailer

Developed as an economical solution to the teaching of foreign languages in rural areas and where one language laboratory on wheels may serve a number of classes,



the Rheem Califone mobile classroom will accommodate from an eight to a 27-station language laboratory. It is housed in a ruggedly constructed trailer, fully air conditioned and weatherproof, and is available in 35, 42 and 55-foot lengths, eight and 10 feet wide. Rheem Califone, 1020 N. La Brea Ave., Hollywood 38, Calif.
For more details circle #595 on mailing card.

(Continued on page 108)

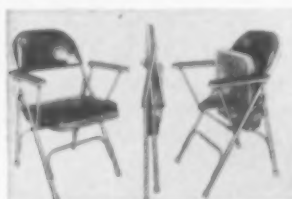
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without harming
the surface*

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Folding Arm Chair Has Upholstered Seat and Back



The new Howe 100 folding arm chair features full length arms and an independent seat fold so that the chair remains standing even when the seat is up, thus providing easy access when chairs are set up in auditorium style. Arms, back and seat

are cushioned with foam rubber, and the heavy gauge steel tubing frames are finished in beige baked enamel. **Howe Folding Furniture, Inc., 1 Park Ave., New York 16.**

For more details circle #596 on mailing card.

Score Gymnasium Finish Is Non-Yellowing

A gymnasium may be completely refinished in two days with Score, a new colorless gymnasium finish that does not yellow or darken floors, even when exposed to sunlight. Durable and burn resistant, Score does not crack or peel, and dries rapidly. **J. I. Holcomb Mfg. Co., Inc., 1600 Barth Ave., Indianapolis 7, Ind.**

For more details circle #597 on mailing card.

Compact TelKee Cabinet Holds Two Key Systems

Two complete key systems are held in one cabinet in the new TelKee Dual Compartment Line. The new cabinet has a rear compartment that has a separate padlock locked door, protecting space for up to 50 different key changes which require maximum security and which must be kept separate from other keys. The front of the cabinet has room for four Swing-



matic panels that can control up to 400 key changes and both the front panels and the rear maximum-security key compartment are controlled, filed and indexed by the standard TelKee system. **P.O. Moore, Inc., Glen Riddle, Pa.**

For more details circle #598 on mailing card.

Anti-Hesive Aperture Plates Eliminate Filmstrip Sticking

The development of Viewlex Anti-Hesive Aperture Plates eliminates the problem of filmstrip sticking caused by moisture which remains in various types of film stock. The result of a concentrated research program undertaken at Viewlex, Anti-Hesive Aperture Plates will be standard equipment on all Viewlex Projectors and the design of the plates permits their interchangeability on all Viewlex Projectors made since 1950. **Viewlex, Inc., 35-01 Queens Blvd., Long Island City 1, N.Y.**

For more details circle #599 on mailing card.

Four Typewriters Introduced by Underwood

Three electric and one manual typewriter are included in the complete new line recently introduced by Underwood. The line is designed to provide machines for every use, with each machine developed to meet a specific need. Included are the Raphael, an electric typewriter with



variable spacing which produces transcript with the sharpness of printing; the Forum, featuring standard typewriter spacing with electric operation; the Scriptor, designed for general purpose typing, and the Touch-Master Five, a standard typewriter with light touch for general purpose typing. **Underwood Corp., 1 Park Ave., New York 16.**

For more details circle #600 on mailing card.

Finally!... a truly acid resistant
laboratory top material

**IMPROVED
KEMROCK**



During all the years that Kewaunee has been designing and engineering fine science furniture, they have also been perfecting Laboratory Top Materials. And, even though these materials have been accepted as highly resistant to the viles of laboratory exposure, none can compare with the versatility of the new, improved Kemrock.

In fact, tests prove that there is no other top material available which so thoroughly protects against the ravages of all acids, alkalis and solvents.

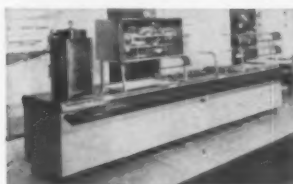
Send for test specifications and/or ask your Kewaunee representative for a sample to make your own tests. Compare with competitive products and you, too, will be convinced that improved Kemrock is the finest.



KEWAUNEE MANUFACTURING COMPANY
ADRIAN, MICHIGAN
KEWAUNEE TECHNICAL FURNITURE CO.
STATESVILLE, N. C.

GENERAL SALES OFFICE: 3007 W. FRONT ST., STATESVILLE, N. C.

Cafeteria Display Unit Has Plate Glass Guards

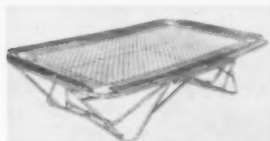


Curved plate glass protector guards and curved aluminum support brackets improve and speed service with the Bastian-Blessing Custom-Modular line of cafeteria equipment. The post obstruction on the serving side is eliminated and the glass unit is more sanitary. Bastian-Blessing Co., 4203 W. Peterson, Chicago 46.

For more details circle #601 on mailing card.

1961 Rebound Tumblers are Chrome Finished

Available to schools and colleges at the same price as painted equipment, the 1961 Trampoline Brand tumbling equipment is now chrome finished. The new



units are rust resistant, feature new patented leg design and are attractive in appearance. Nissen Trampoline Co., 930 27th Ave. S. W., Cedar Rapids, Iowa.

For more details circle #602 on mailing card.

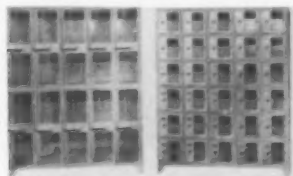
Kafino Instant Coffee is Caffein Free

A new, 97-per cent caffeine free instant coffee in powdered form is introduced by Continental in Kafino. It is packaged in individual service envelopes, 50 to the carton. Continental Coffee Co., 2550 N. Clybourn, Chicago 14.

For more details circle #603 on mailing card.

Gymnasium Lockers For Limited Space

Designed to meet the problem of limited space around gymnasiums, the Sophomore Double Tier, with ten compartments, and the Sophomore Gym Locker, with thirty compartments, provide adequate hanging and storage area for average equipment. Built of 14-gauge steel mesh, ventilated on three sides to ensure maximum air circulation, the lockers are also available with a frame base for holding two 30-compartment units back to back, and can be equipped with casters for ready mobility. DeBourgh Mfg., Co., 2924 27th Ave. S., Minneapolis, Minn.



For more details circle #604 on mailing card.

(Continued on page 110)



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for real
in 3-D**

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Just turn the zoom knob. That's all there is to it. Instead of a few arbitrary fixed powers you have an infinite number of repeatable magnifications throughout the entire range of the instrument. (Available from 3.5X to 120X.) See the specimen better than ever before... in magnifications you've never seen before!

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Penetrating instantly when sprayed on dust mops or cloths, Gripdust aerosol dust mop and dust cloth treatment permits quick, sanitizing cleaning of floors, desks, chairs and other furniture. Supplied in 16-ounce pushbutton cans, the spray

cleaner has a refreshing scent, and a special detergent ingredient facilitates laundering of the mops and cloths. **C. B. Dolge Co., Westport, Conn.**

For more details circle #605 on mailing card.

Vinyl Wall Covering Added by Congoleum-Nairn

Wall-Ever Vinyl is the trademarked name of the top quality vinyl wall covering added by Congoleum Nairn to its line of vinyl floor coverings. Offered at an unusually low price, the product features a heavy duty vinyl wear layer combined with an exclusive backing of vinyl felt. Installation is simplified due to extremely rapid adhesive absorption and excellent adherence, even on non-porous

surfaces. It is highly resistant to cracking, gauging and scratching, and has top ratings for non-flammability, tensile strength, color fastness and dimensional stability, as well as to acids, alkalis, grease, oils, inks, extreme temperatures and frequent detergent washings. **Congoleum-Nairn, 195 Belgrove Drive, Kearny, N.J.**

For more details circle #606 on mailing card.

Univex Stands and Carts for Food Preparation Rooms

Several additions to the Univex line of food handling equipment will add flexi-



bility in institutional kitchens. A new mobile stand designed for peelers permits peeling machines to be wheeled to the sink for use, saving counter space and eliminating lifting. Other Univex food machine stands, in addition to mobility, provide tops that can be adjusted in height for the convenience of the operator and the most efficient use of the particular machine it holds. The new Mixer Accessory Stand illustrated, Model E-240-A, is two feet in width and depth, die-formed of heavy gauge steel, galvanized or stainless, with telescopic legs which adjust from 24 to 36 inches high. It is available with or without casters and provides both a stand for any type or make of bench mixer, and a well-fitted, enclosed storage cabinet to organize all attachments for the mixing machine in one place. **Universal Industries, Somerville, Mass.**

For more details circle #607 on mailing card.

Storage in Limited Space With Rollaway Compact Units

Easily stored in limited space because of their compact folded size, new Rollaway folding table and bench units are designed for all institutional applications where

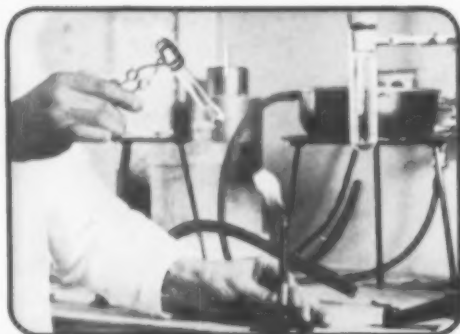


built-in wall cabinets are not feasible. Available in 12 and 14-foot lengths, the table/bench combinations roll smoothly on swivel-action hard rubber wheels and are equipped with a hydraulic piston valve that controls the rate of opening. **Son-Nel Products Co., 900 19th Ave., Oakland 6, Calif.**

For more details circle #608 on mailing card.

(Continued on page 112)

WITH PHILCO CLOSED CIRCUIT TV



INSTRUCTION BECOMES LUCID

One of the more important values of closed circuit TV in education is its ability to highlight many areas of study, more clearly, to more students than normal teaching methods. Instructional TV also allows the great economy of multi-group instruction, and makes specialized teaching talent available to a greater number of students.

Philco's highly developed, fully transistorized equipment, with "building-block" design is easy to operate, maintenance free and satisfies future TV needs without costly replacement. Philco engineers will be glad to assist you in planning your closed circuit TV system. Write today stating your problems.

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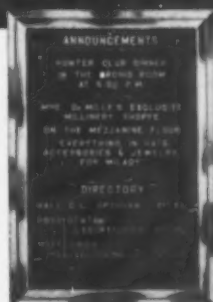
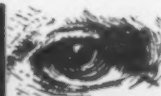
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CHALK BOARDS
All sizes, in black or green, smooth Dur-O-Plate surfaces.

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KRUEGER SERIES 100
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Finest quality seating value per dollar expenditure! Strong, rigid, durable, extra roomy and comfortable, it features electrically seam-welded tubular steel frame; built up vertical frame spacers for added strength and seat support, non-tipping Y-type design; and a choice of steel, contour-moulded wood veneer, or foam rubber cushioned and upholstered seat models.



No. 101

**KRUEGER TABLET ARM
CHAIR** — wherever a
writing surface is required

Multipurpose chair with many uses. Tablet arm is rigidly secured to tubular steel support which automatically raises or lowers when chair is opened or closed. 7-Ply tablet arm comes with a natural birch or maple lacquer finished face (No. 101-TA) or with a tan birch plastic-laminate face (No. 101-TAP). Chair is our popular non-tippable No. 101. Folding mechanism is safety designed thru-out.



No. 101-TA

KRUEGER SERIES 900-E
— quality tubular steel
seating at low cost...

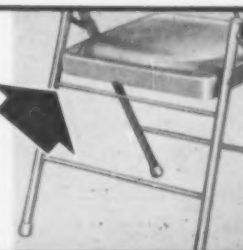
Few chairs offer so much for so little! Construction features heavy-gauge tubular steel frame with tubular cross-braces; extra large seat and a deep, curved, correct postured backrest; and, non-marring Super Dylon feet over steel dome gliders. This low cost chair features one-motion opening and closing and folds flat to frame thickness for compact storage. All steel, wood veneer, or upholstered seat models.



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**NEW—added cross-brace
increases
STRUCTURAL RIGIDITY**

Krueger chairs have always been noted for their exceptional strength and rigidity. Now, for additional structural durability and longer life we have added another frame cross-brace to the rear legs of all these chairs at no extra cost!



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Whether it's a rifle team in Rangoon, a wrestling team in Washington, D.C., or a "home exerciser" in Hollywood, there is a PREMIER mat designed to meet their needs—at the price they want to pay. We will be happy to show you how PREMIER Athletic Products can solve your particular sport safety problem. Complete and mail coupon below.

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Prefabricated Piping System for Steam and Hot Water

Plasti-clad is the name given to a new, prefabricated piping system for the overhead distribution of steam, hot water and similar lines. It consists of the pipe and insulation covered with aluminum foil, over which are two wrappings of fiberglass cloth integrated within the Plasti-clad material and finish. The entire system is prefabricated complete with ex-



pansion loops, anchor units, elbows and T units, ready for installation. Also prefabricated is the new Plastic Coated system for underground distribution, consisting of pipe and insulation covered by a spiral welded metal conduit protected against soil and stray current corrosion by an epoxy coating which is reinforced with fiberglass cloth and is highly resistant to acids, alkalis and salts. Ric-wil, Inc., Barberton, Ohio.

For more details circle #609 on mailing card.

Outdoor Luminaire Turns Itself On and Off

Any standard NEMA photoelectric cell can be used with the new Holophane Outdoor Luminaire which turns itself on at night and off in the daytime in any outdoor area where automatic operation is desired. The basic design uses an Endural glass bowl refractor with optical prisms on inside and outside surfaces while the fixture parts are made of aluminum and stainless steel to resist corrosion. The new luminaire is suitable for mounting on poles or walls with brackets. Holophane Co., Inc., 342 Madison Ave., New York 17.

For more details circle #610 on mailing card.

Heavy Duty Triple Beam Balance Has 2610 Gram Capacity

High capacity of 2610 grams, fine sensitivity and sturdy construction are features of the new Dec-O-Gram high-form heavy duty triple beam balance. Attachment weights, which store in the base and are included with each balance, give the high capacity. Particularly suited to educational and laboratory applications,



the Dec-O-Gram has a six-inch diameter removable pan, pan bow and tiered graduated beams of stainless steel for maximum corrosion protection. All other parts are protected by a long-lasting baked epoxy paint. Ohaus Scale Corp., 1030 Commerce Ave., Union, N.J.

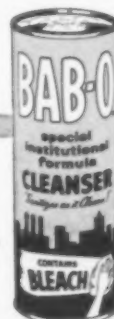
For more details circle #611 on mailing card.

For
hard
to
remove
spots



Pure white Institutional Bab-O, with Instant Bleach, removes stains, soil, grease fast. Work-saving controlled foam makes thorough one-rinse action possible—leaves no grit, no powdery deposit. Large, 21-oz. shaker can. (Also in economical 100-lb. drums.)

A full line of Babbitt products is available through your sanitary jobber.



If it needs
cleaning...
it needs
Babbitt

B. T. BABBITT, INC. - Institutional Division
625 MADISON AVENUE, NEW YORK 22, N. Y.

Ultima Lounge Furniture Is Sturdy and Economical

Moderately priced, yet sturdily constructed and attractive and colorful in design, the new line of Ultima dormitory and lounge furniture contains more than 150 pieces. Styled by a leading designer, the Ultima series features maximum comfort, modern styling and extra-rugged,



one-piece construction, thus making it especially suitable for use in dormitories, student unions, faculty housing and similar areas. All tops are attractively finished in plastic, the frames are constructed of heavy gauge, permanently welded tubular steel, and upholstery is offered in a wide line of fine quality materials. All upholstery may be quickly removed for cleaning. Griggs Equipment, Inc., Box 630, Belton, Texas.

For more details circle #612 on mailing card.

Continental Cuisine Food Is Individually Portioned

Armour introduces more than 20 prepared entrees and appetizers in its new Continental Cuisine Food Service line of individually-portioned dishes. Developed from international recipes as well as favorite American dishes, the foods are prepared under the personal direction of chefs with continental training. Individual portions are packed in compartmentalized flexible film pouches that separate the components, and are quick frozen for full flavor and quality retention. The pouches need only to be heated in boiling water for 10 to 12 minutes to be ready for serving. Armour & Co., P.O. Box 9222, Chicago 90.

For more details circle #613 on mailing card.

Mardi Gras Tile Colors Go All the Way Through Material

Resilient, slip-resistant and easy to keep clean, Mardi Gras tile is made of Nyracord and designed to afford resistance to wear,

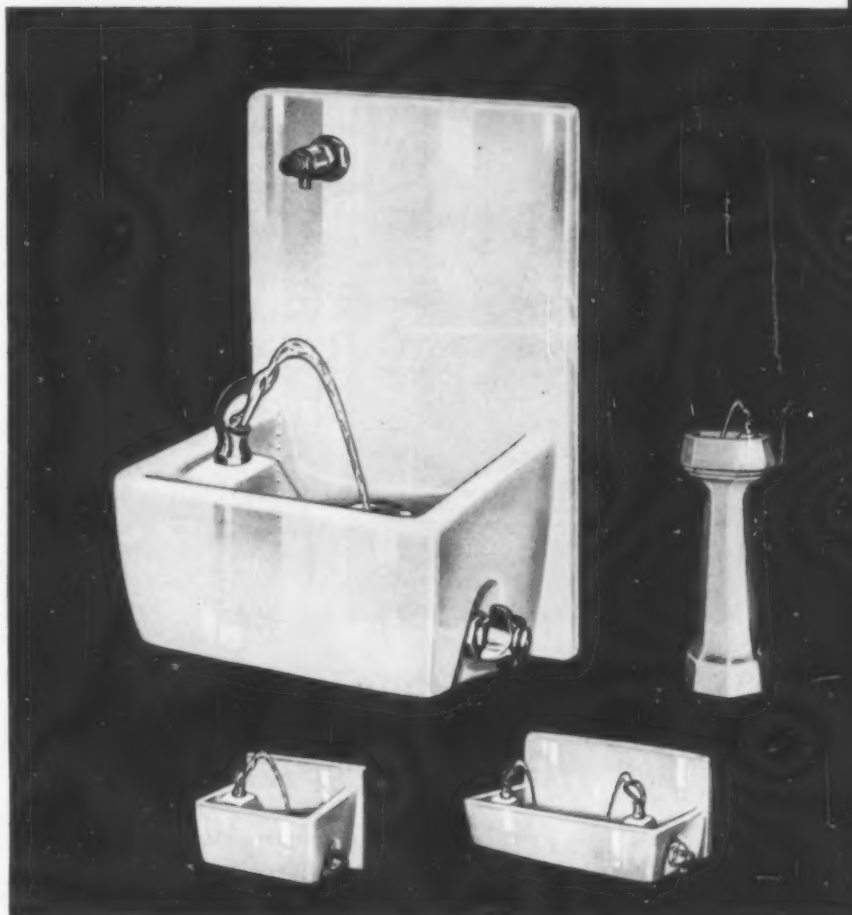


scoring, denting and puncturing. Available in a choice of thicknesses and sizes, the tile is produced in five colors, which go all the way through the material so as not to show wear. American Mat Corp., 1719 Adams St., Toledo 2, Ohio.

For more details circle #614 on mailing card.

(Continued on page 114)

Streamlined fountains of glistening vitreous china



in modern styling

The matchless beauty of vitreous china is successfully combined with functional utility in these streamlined fountains by Halsey Taylor. The line is complete, providing a wide range of selection in face-mounted and semi-recessed wall types, as well as battery models and pedestals. Available in gleaming white or in attractive colors to suit your architectural decor.

The Halsey W. Taylor Co., Warren, Ohio



Write for latest catalog, or see Sweet's or the Yellow Pages

THIS MARK OF LEADERSHIP IDENTIFIES THE MOST
COMPLETE LINE OF MODERN DRINKING FIXTURES

G-E Closed-Circuit Monitors for Improved Classroom Viewing

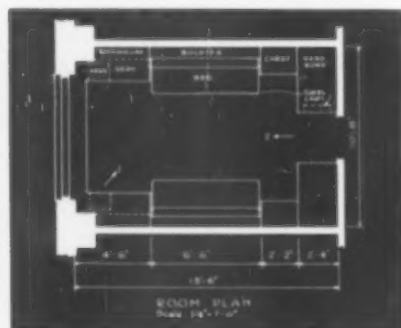
Engineered to provide maximum brightness, stability and detail over the entire



viewing area, the new series of electronic closed circuit television monitors is sim-

ple to maintain and adjust, and provides easy accessibility to all parts. The units operate with any standard monochrome camera and are offered in cabinets or rack mounting in three screen sizes. Size, focus and linearity controls are operated individually and adjustment of one has no effect on the others, due to an advanced design technique. The new monitors are designed for use in schools and colleges for instruction, in hospitals for monitoring x-ray treatments and surgical procedures, and for other closed circuit uses. An accessory polarized safety glass faceplate is available for additional effectiveness in minimizing reflections and improving contrast ratio. General Electric, Communication Products Dept., Syracuse, N.Y.

For more details circle #615 on mailing card.



Chances are 1000 to 1 that this plan **WON'T** fit your requirements!

Out of over a thousand dormitory furniture plans on which we have worked there has been only one case where two institutions adopted exactly the same student room furniture layouts and designs. This is why Sligh-Lowry Contract Furniture Company has no stock plans or furniture units but is constantly called in to consult with the architect and the college administrators and residence halls directors to assist in developing room layouts and designs and specifications for pre-built, pre-finished, built-in and free-standing furniture for dormitory rooms to best suit each individual institution's needs, wishes and budget. The above illustrated plan exactly met the requirements of a leading mid-western university. Let us help to develop one that will completely meet yours. Send for our comprehensive Dormitory Furniture Planning Manual at no cost to college and university officials or architects.

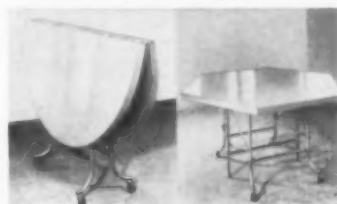


SLIGH Lowry

CONTRACT FURNITURE COMPANY HOLLAND, MICHIGAN

Round, Square or Hexagon Shapes In Portable Folding Table Line

Designed to nest and store compactly, the new line of Schieber folding "shape tables" can be folded and rolled from the room or against the wall on their own markproof neoprene swivel casters. Available in round, hexagon and square shapes in two sizes, 48 or 60 inches across the center, the tables are equipped with four tubular metal legs with cross supports that curve outward for stability and two



crutch-tipped center legs that fold down firmly on the floor to prevent shifting. Schieber Mfg. Co., 12955 Inkster Rd., Detroit 39, Mich.

For more details circle #616 on mailing card.

Super Floor Dressing Is Improved Mop Treatment

Super Floor Treat is a clear, light amber colored liquid described as an improved mop treatment for safe use on any type floor which has been properly sealed or treated. Used on a dust mop for a quick daily dust mopping, it will pick up dust and leave a thin, hard film which is highly resistant to black marking by rubber or other materials. It improves anti-slip properties, adds luster and extends the wearing life of wax. A special active additive makes mops easily laundered. Super Floor Treat is also available with HR-7, a powerful germicide which destroys most bacteria on contact and greatly reduces the spread of air-borne bacteria. Multi-Clean Products, Inc., 2277 Ford Parkway, St. Paul 16, Minn.

For more details circle #617 on mailing card.

Super Singlefold Towel Cabinet Is Multi-Capacity Unit

No. 564 Super Singlefold Towel Cabinet, for use in washrooms with heavy



traffic, has a capacity of approximately 1300 singlefold towels. Fort Howard research in cabinet design produced a cabinet interior with improved dispensing so that the heavy load of towels can be inserted without the total weight resting on the bottom towel. Servicing time is cut by as much as 75 per cent. Fort Howard Paper Co., Green Bay, Wis.

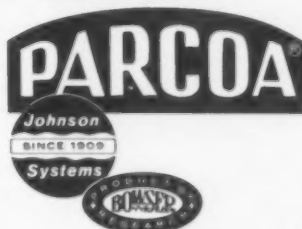
For more details circle #618 on mailing card.

(Continued on page 116)



DEPENDABLE PARCOA®

**SOLVES
PARKING
PROBLEMS
GIVES YOU
CONTROLLED
OFF-STREET
PARKING**



Every month, more and more cars are appearing on America's highways adding to congestion and confusion. Parcoa offers the perfect solution . . . positive parking control—day and night . . . smoothly, safely, without interruption or overcrowding. PARCOA is an automatically controlled completely integrated parking system—not just a gate. You are offered a choice of controls . . . coded card key, coin operation, ticket issuing system or a time-dated ticket dispenser.

PARCOA will pay for itself many times over. 100% collection and ease of maintenance are assured. Before deciding on any parking control system investigate **PARCOA!**

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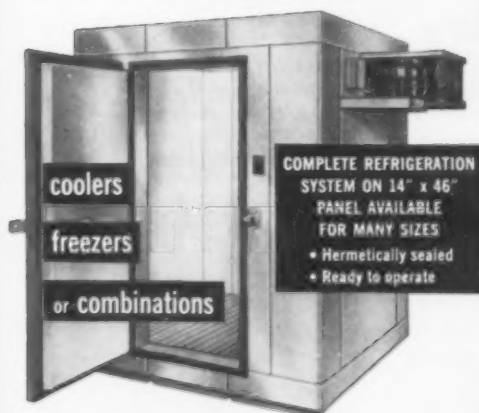
NEW YORK: 420 Lexington Ave., New York 17, N.Y.

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Bally walk-ins

Aluminum or steel sectional construction



coolers

freezers

or combinations

**COMPLETE REFRIGERATION
SYSTEM ON 14" x 46"
PANEL AVAILABLE
FOR MANY SIZES**
• Hermetically sealed
• Ready to operate

Sanitary! Strong! Efficient! You can assemble any size cooler, freezer or combination in any shape from standard sections. Add sections to increase size as your requirements grow. Easy to disassemble for relocation.

Bally Case and Cooler, Inc., Bally, Pa.

Get details—write Dept. CUB-6 for FREE Book.



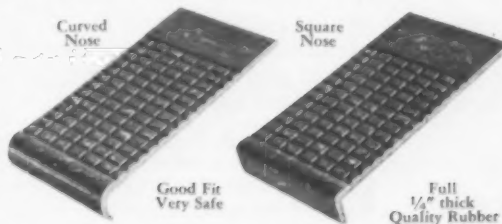
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MUSSON SAFETY DESIGNED RUBBER MATS AND TREADS

Specify safety and quality. Get facts about our heavy-duty rubber treads and new Vinyl treads. Let us quote on entrance mats.

MUSSON'S POPULAR NO. 500 STAIR TREAD

For hospitals, schools, churches, theaters, offices, factories, institutions. **DESIGNED FOR SAFETY, BEAUTY, DURABILITY.** These heavy-duty molded treads are popular. Musson makes the toughest heaviest gauge and weight. Easy to clean. Try them.



Curved
Nose

Square
Nose

Good Fit
Very Safe

Full
1/4" thick
Quality Rubber

These neat, modern treads have rectangular pattern with smooth rear border. They are 12 1/2" deep, in widths of 24", 30", 31", 42", 48", 54", 61", 72". Colors: plain black or marbled red, gray, green, mahogany, beige, walnut, black. Landing tile to match.

MUSSON PERFORATED ENTRANCE MATS have been designed for spike heel safety, easy cleaning. Pebble base allows drainage. Sizes to 6' x 16'6" in one piece.

Write for catalog, samples and prices.

THE R. C. MUSSON RUBBER CO.

1330 E. Archwood Ave.

Akron 6, Ohio

Instant Potato With Milk Is Complete Product



A completely prepared food, Heinz Instant Potato With Milk is ready to serve by simply adding water and whipping the

mixture to the desired consistency. Instructions are printed on every label and the institutional product is supplied in #10 cans, six cans to the case. All seasoning, in addition to whole milk non-fat milk solids, is included in the new improved formula. H. J. Heinz Co., P.O. Box 57, Pittsburgh 30, Pa.

For more details circle #619 on mailing card.

Stainless Steel Cleaner Is Quick and Easy to Use

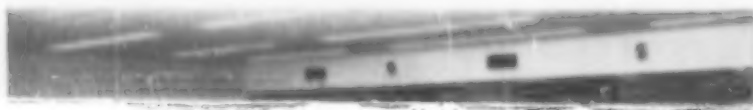
Cleaning time is reduced considerably with the new Majestic Stainless Steel Cleaner and Polish which is supplied in a handy 16-ounce aerosol container for convenience and economy. When used to clean stainless steel surfaces, they are left

with a protective polish which resists staining, water-potting and fingerprinting. Majestic Wax Co., 1600 Wynkoop, Denver 2, Colo.

For more details circle #620 on mailing card.

Wall-Mounted Showers Are Economical and Self-Contained

Completely self-contained, the new Bradley semi-circular stainless steel wall-mounted showers are available in two or three-student models. They can be located on walls at any desired height and are only 38 inches long and 11 inches deep. Units include panel with cornice



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For over 35 years the PREMIER seal has symbolized "the best" in athletic mats. Throughout the world, wherever competitive sports exist, athletes are protected by the scientific design and precision craftsmanship that go into every PREMIER mat.

Whether it's a rifle team in Rangoon, a wrestling team in Washington, D.C., or a "home exerciser" in Hollywood, there is a PREMIER mat designed to meet their needs—at the price they want to pay. We will be happy to show you how PREMIER Athletic Products can solve your particular sport safety problem. Complete and mail coupon below.

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CORPORATION**

DEPT. "G" RIVER VALE, N.J.



Outdoor Luminaire

Turns Itself On and Off

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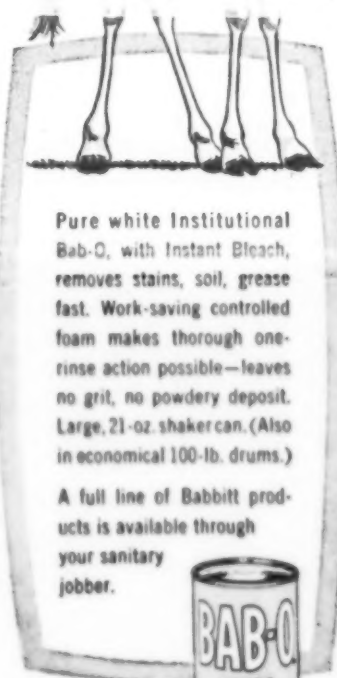
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For more details circle #611 on mailing card.



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A full line of Babbitt products is available through your sanitary jobber.

**If it needs
cleaning...
it needs
Babbitt**



B. T. BABBITT, INC. - Institutional Division
625 MADISON AVENUE, NEW YORK 22, N. Y.

In-Sight-Trol Is Expandable Schedule Board

A new schedule board which can be used for programming instructors, students or curriculums is introduced by Game-Time. Called In-Sight-Trol (for Instant Sight Control), the board permits a printed and color-coded visual means of instantly giving a graphic summary of the entire schedule. Modular and flexible in design, the new boards are adaptable to the needs of small or large colleges and are manufactured in sizes to accommodate 15, 30, 60 or 90-teacher schedules. A double aluminum track permits cards to



be snapped into place and plastic over-

is individually color-coded.

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For more details circle #613 on mailing card.

Mardi Gras Tile Colors Go All the Way Through Material

Resilient, slip-resistant and easy to keep clean, Mardi Gras tile is made of Nyracord and designed to afford resistance to wear,



scoring, denting and puncturing. Available in a choice of thicknesses and sizes, the tile is produced in five colors, which go all the way through the material so as not to show wear. American Mat Corp., 1719 Adams St., Toledo 2, Ohio.

For more details circle #614 on mailing card.

(Continued on page 114)

Colorful Porcelain Now Offered in Lab Sinks

Porcelain laboratory sinks that will handle any corrosive, weak or strong, hot or cold, are now available in cheerful colors. The impervious, permanent sinks are offered in "surf-green," "mist-gray" and white. U. S. Stoneware, Akron 9, Ohio.

For more details circle #627 on mailing card.

Study Hall/Dormitory Desk of Solid Birch Construction

Sturdily constructed of solid birch with a Honey Maple finish and matching Formica top, the new Study Hall/Dormitory Desk #600 has a large utility drawer, double compartment book box, heavy

duty leg stretchers and rubber cushion glides. The economically-priced desk is

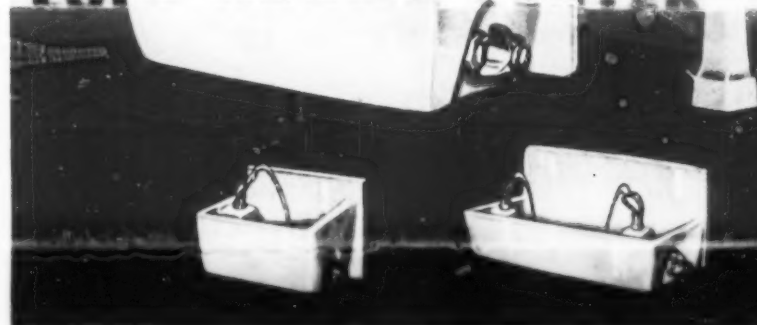


designed for study with a 32 by 18-inch top, yet occupies minimum space. Desks of America, Inc., Bridgeport 6, Conn.

For more details circle #628 on mailing card.
(Continued on page 118)

HARVARD'S

LOFF DRINK CENTER



in modern styling

The matchless beauty of vitreous china is successfully combined with functional utility in these streamlined fountains by Halsey Taylor. The line is complete, providing a wide range of selection in face-mounted and semi-recessed wall types, as well as battery models and pedestals. Available in gleaming white or in attractive colors to suit your architectural decor.

The Halsey W. Taylor Co., Warren, Ohio



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G-E Closed-Circuit Monitors for Improved Classroom Viewing

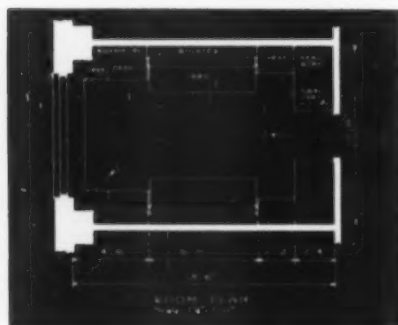
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For more details circle #615 on mailing card



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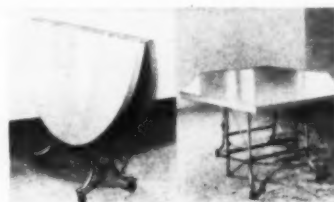


SLIGH Lowry

CONTRACT FURNITURE COMPANY HOLLAND, MICHIGAN

Round, Square or Hexagon Shapes In Portable Folding Table Line

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crutch-tipped center legs that fold down firmly on the floor to prevent shifting. **Schieber Mfg. Co., 12955 Inkster Rd., Detroit 39, Mich.**

For more details circle #616 on mailing card

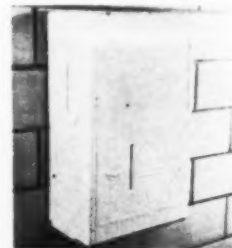
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For more details circle #617 on mailing card

Super Singlefold Towel Cabinet Is Multi-Capacity Unit

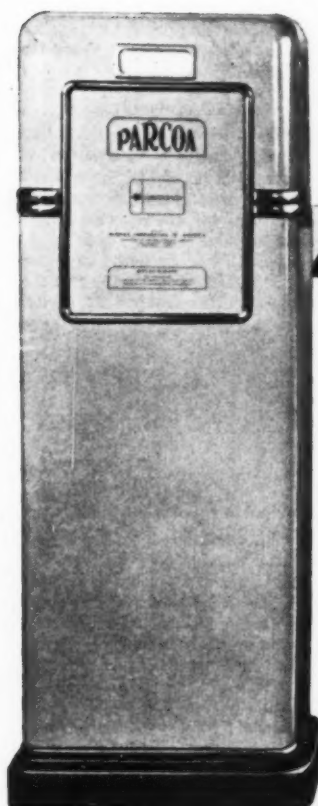
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For more details circle #618 on mailing card

(Continued on page 116)



DEPENDABLE PARCOA®

**SOLVES
PARKING
PROBLEMS
GIVES YOU
CONTROLLED
OFF-STREET
PARKING**



Every month, more and more cars are appearing on America's highways adding to congestion and confusion. Parcoa offers the perfect solution . . . positive parking control—day and night . . . smoothly, safely, without interruption or overcrowding. PARCOA is an automatically controlled completely integrated parking system—not just a gate. You are offered a choice of controls . . . coded card key, coin operation, ticket issuing system or a time-dated ticket dispenser.

PARCOA will pay for itself many times over. 100% collection and ease of maintenance are assured. Before deciding on any parking control system investigate **PARCOA!**

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DISTRICT FIELD OFFICES:

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Bally walk-ins
Aluminum or steel sectional construction

**coolers
freezers
or combinations**

**COMPLETE REFRIGERATION
SYSTEM ON 14" x 46"
PANEL AVAILABLE
FOR MANY SIZES**

- Hermetically sealed
- Ready to operate

Sanitary! Strong! Efficient! You can assemble any size cooler, freezer or combination in any shape from standard sections. Add sections to increase size as your requirements grow. Easy to disassemble for relocation.

Bally Case and Cooler, Inc., Bally, Pa.

Get details—write Dept. CUB-6 for FREE Book.

FOR BETTER SCHOOLS

MUSSON
SAFETY DESIGNED
RUBBER
MATS AND TREADS

Specify safety and quality. Get facts about our heavy-duty rubber treads and new Vinyl treads. Let us quote on entrance mats.

MUSSON'S POPULAR NO. 500 STAIR TREAD

For hospitals, schools, churches, theaters, offices, factories, institutions. **DESIGNED FOR SAFETY, BEAUTY, DURABILITY.** These heavy-duty molded treads are popular. Musson makes the toughest heaviest gauge and weight. Easy to clean. Try them.

Curved
Nose

Square
Nose

Good Fit
Very Safe

Full
1/4" thick
Quality Rubber

These neat, modern treads have rectangular pattern with smooth rear border. They are 1 1/2" deep, in widths of 24", 30", 31", 42", 48", 54", 61", 72". Colors: plain black or marbled red, gray, green, mahogany, beige, walnut, black. Landing tile to match.

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Write for catalog, samples and prices.

THE R. C. MUSSON RUBBER CO.
1330 E. Archwood Ave. Akron 6, Ohio

Instant Potato With Milk Is Complete Product



A completely prepared food, Heinz Instant Potato With Milk is ready to serve by simply adding water and whipping the

mixture to the desired consistency. Instructions are printed on every label and the institutional product is supplied in #10 cans, six cans to the case. All seasoning, in addition to whole milk non-fat milk solids, is included in the new improved formula. H. J. Heinz Co., P.O. Box 57, Pittsburgh 30, Pa.

For more details circle #619 on mailing card.

Stainless Steel Cleaner Is Quick and Easy to Use

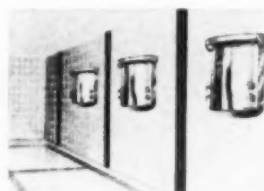
Cleaning time is reduced considerably with the new Majestic Stainless Steel Cleaner and Polish which is supplied in a handy 16-ounce aerosol container for convenience and economy. When used to clean stainless steel surfaces, they are left

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For more details circle #620 on mailing card.

Wall-Mounted Showers Are Economical and Self-Contained

Completely self-contained, the new Bradley semi-circular stainless steel wall-mounted showers are available in two or three-student models. They can be located on walls at any desired height and are only 38 inches long and 11 inches deep. Units include panel with cornice



and cover, adjustable shower heads with hot and cold valves for each, control valves with interior piping, and soap trays. Installation costs are low and cleanliness and sanitation are achieved with minimum maintenance. Bradley Wash-fountain Co., 2203 W. Michigan St., Milwaukee 3, Wis.

For more details circle #621 on mailing card.

Automatic Gas Water Heaters for Institutional Use

The new Unihot automatic gas water heaters, Model U90 and U21, are designed to supply a constant volume of high temperature water. They are ruggedly constructed for years of continual heavy duty service, designed for flexibility in any installation, and multiple units assure an uninterrupted supply of hot water. Additional units may be installed as needs increase. Unimac Co., 802 Miami Circle, N.E., Atlanta 5, Ga.

For more details circle #622 on mailing card.

Compact Can Crusher Operates Quietly

Quiet enough to use adjacent to serving and work areas, the new Herlex Hydraulic Can and Bottle Crushing machine is compact and readily mobile, rolling easily to



location and out of the way when not in use. It crushes cans pancake flat and pulverizes bottles to take minimum space in waste cans. The machine is completely hydraulic and is ruggedly engineered for heavy daily use. Herlex Sales Co., 1440 W. Van Buren St., Chicago 7.

For more details circle #623 on mailing card.



Typical Buckstaff Library Installation

1 source 1 responsibility

BUCKSTAFF — since 1882 — a most self-sufficient and respected maker of the finest institutional furniture. Wholly-owned facilities include a sawmill, dry kilns, plastic laminating plant, chair and table factory — all located on a 20-acre site in an area where expert wood craftsmanship has never been the exception — but rather — a tradition — a matter of local pride. And, because BUCKSTAFF is all this, it means you deal with one dependable source and centralized responsibility. It means also that you get these highly desirable, exclusive library furniture advantages . . .

the
quality
kind

- ▶ Resilyte high pressure plastic surfacing in a selection of matching wood grains at no extra cost.
- ▶ Most extensive use of 5-Ply Maple Veneered Panels for added durability and attractiveness.
- ▶ Widest choice of chairs specifically created for library use.
- ▶ Assurance of more closely matched components since Buckstaff, only, designs — manufactures — finishes all of its own furniture.

for complete information, write . . .

THE BUCKSTAFF COMPANY

library furniture division ■ oshkosh, wisconsin



In-Sight-Trol Is Expandable Schedule Board

A new schedule board which can be used for programming instructors, students or curriculums is introduced by Game-Time. Called In-Sight-Trol (for Instant Sight Control), the board permits a printed and color-coded visual means of instantly giving a graphic summary of the entire schedule. Modular and flexible in design, the new boards are adaptable to the needs of small or large colleges and are manufactured in sizes to accommodate 15, 30, 60 or 90-teacher schedules. A double aluminum track permits cards to



be snapped into place and plastic overlays or special cards can be snapped into the second track without disturbing the basic schedule. Cards are color-coded and furnished in perforated sheets, pre-printed with all necessary information. Game-Time, Inc., Litchfield, Mich.

For more details circle #624 on mailing card.

"New Concept" Floor Tile Is Durable, Economical

"New Concept" long wearing, flame-retardant Ruberoid tile has a distinctive binder, Polymetric, developed exclusively by Mastic, which makes it exceptionally resistant to grease, oil and alkali. Low porosity makes the tile easy to clean and maintain, and permits it to be used on below-grade floors. It is economically priced and is available in 37 decorator colors. The Ruberoid Co., 500 Fifth Ave., New York 17.

For more details circle #625 on mailing card.

Popcorn Warmer Helps Speed Sales

Offering over eight cubic feet of storage capacity, the new Cretors Mark I counter Popcorn Warmer keeps popcorn hot, crisp and ready for immediate sale at athletic games and other events where it can be



used to help raise funds for regular or special projects. The Cretors "conditioner" circulates thermostatically controlled heat in the insulated warmer. It is housed in an all metal pull-out drawer for easy servicing and the stainless steel baffle assures a constant flow of popped corn. Cretors, Popcorn Bldg., Nashville, Tenn.

For more details circle #626 on mailing card.

Colorful Porcelain Now Offered in Lab Sinks

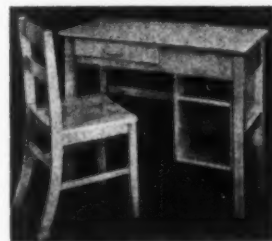
Porcelain laboratory sinks that will handle any corrosive, weak or strong, hot or cold, are now available in cheerful colors. The impervious, permanent sinks are offered in "surf-green," "mist-gray" and white. U. S. Stoneware, Akron 9, Ohio.

For more details circle #627 on mailing card.

Study Hall/Dormitory Desk of Solid Birch Construction

Sturdily constructed of solid birch with a Honey Maple finish and matching Formica top, the new Study Hall/Dormitory Desk #600 has a large utility drawer, double compartment book box, heavy

duty leg stretchers and rubber cushion glides. The economically-priced desk is



designed for study with a 32 by 18-inch top, yet occupies minimum space. Desks of America, Inc., Bridgeport 6, Conn.

For more details circle #628 on mailing card.
(Continued on page 118)

HARVARD'S LOEB DRAMA CENTER

FEATURES

CLANCY'S

SceneControl*



A really NEW System

of Stage Rigging that . . .

- ... makes scene shifting as automatic and simple as dimming lights
- ... develops whole new concepts of staging and scenic design
- ... offers architects a new flexibility and economy of space and materials in stage house design

Imagine a theater designed without a separate steel grid structure . . . with no pin rails and counterweights. Now, Clancy makes possible stage houses of reduced dimensions and more graceful elevations.

Directors and designers work with an uncluttered, more efficient, safer backstage area, where electric muscles move scenery silently, accurately — controlled by one man at a console. And by eliminating the traditional lines of parallel battens, Clancy's Push-

Button Scene Shifting offers them a new flexibility of scenic effects with battens raked at any angle.

If you're concerned with school or college construction, you'll want complete details of Clancy's SceneControl and its effect on theater design. A technical bulletin and brochure are yours for the asking.

For additional counseling, Clancy's famous stage engineering service is also available. Just write or wire.

*Pat No. 2942879

J. R. Clancy, Inc.

Stage Consultants and Manufacturers

1010 W. BELDEN ST., SYRACUSE 4, N. Y.

CREATORS OF FAMOUS STAGES FOR THE ENTERTAINMENT CAPITALS OF THE WORLD

Literature and Services

• Recent developments in surfacing materials for all-weather running tracks are described in a new 19-minute, color and sound motion picture showing actual scenes from track meets and of spring training at two universities. The film is offered by American Bitumuls & Asphalt Co., 320 Market St., San Francisco 11, for showing to administrators and coaches.

For more details circle #629 on mailing card.

• The Vega-Mike wireless microphone system is described in a six-page color brochure offered by Vega Electronics Corp., Cupertino, Calif. Specifications on the complete line of Vega-Mike accessories are presented, in addition to the data on Vega-Mike, described as the first "high-reliability" wireless microphone.

For more details circle #630 on mailing card.

• A new 40-page brochure released by Lennox Industries Inc., entitled "Fresh Air Electric Heating by Lennox," presents methods of heating by electricity and demonstrates the desirability of ducted systems. A brief presentation of heating products in the Lennox line is followed by a discussion of electric heating applications, including six pages of floor plans.

For more details circle #631 on mailing card.

• How a classroom may best be arranged for television viewing is discussed in a brochure, "Arranging the Classroom for TV Viewing," offered by Sylvania Lighting Products, div. of Sylvania Electric Products Inc., 730 Third Ave., New York 17.

For more details circle #632 on mailing card.

• Research Report No. 1323, "A Study of Methods of Grease Removal from Commercial Kitchen Exhaust Air," discusses problems involved in the removal of grease from institutional kitchen exhaust air and describes the construction and performance of an experimental grease vapor removal type gas fired incinerator. Copies of the report are available from the American Gas Association Laboratories, 1032 E. 62nd St., Cleveland 3, Ohio, where the research was carried on, or from the association headquarters, 420 Lexington Ave., New York 17, at \$1 per copy.

For more details circle #633 on mailing card.

• News of research and new products developed by Swift & Co., Union Stock Yards, Chicago 9, for quantity food service is issued regularly from that company's Food Information Service. Recently released is a booklet designed to simplify the making of Danish Pastry, with "how-to-do" pictures showing each step.

For more details circle #634 on mailing card.

• A 48-page booklet, "For Better Steaming," on the advantages of steam cooking, its uses, methods, the cooking time for various foods, and a guide to the selection of steam cooking equipment, is offered by The Cleveland Range Co., 971 E. 63rd St., Cleveland 3, Ohio.

For more details circle #635 on mailing card.

• A 12-page booklet, issued by Industrial Appraisal Co., 222 Boulevard of Allies, Pittsburgh 22, Pa., presents facts of value in case of fire, including property values and fire loss settlements.

For more details circle #636 on mailing card.

• The story of Reolock Fence, from the manufacture of the basic steel to the finished, erected product, is told in a motion picture described in a 36-page booklet available from The Colorado Fuel & Iron Corp., Continental Oil Bldg., Denver, Colo. Information on this and other company Motion Pictures is included in the booklet.

For more details circle #637 on mailing card.

• The first edition of the Graflex Audio-visual Digest is now available from Graflex, Inc., 3750 Monroe Ave., Rochester 3, N.Y. The 48-page booklet, designed for audio-visual teachers, presents digests of articles from professional educational publications, with illustrations, and includes seven pages of product information.

For more details circle #638 on mailing card.

• How to keep all drains open and free-flowing without stop-ups is discussed in a four-page folder on N-zyme for Complete Sewage Control. A development of O'Cedar Div., American Marietta Co., 2246 W. 49th St., Chicago 9, N-zyme is a blend of natural enzymes and saprophytic bacteria for the natural digestion of organic solids, resulting in clean drains, lines, grease traps, septic tanks and cesspools.

For more details circle #639 on mailing card.

• A revised edition of Bulletin 2721, "Crouse-Hinds Sportlighting," is now available from Crouse-Hinds Co., Syracuse 1, N.Y. Nearly 100 suggested lighting layouts for sports are presented in the bulletin, with general information and application data on Crouse-Hinds floodlights.

For more details circle #640 on mailing card.

Would you believe it? This table folds!

Introducing the first folding table to combine slim leg styling with dependable structural rigidity—the new HOWE "500".

Office space can be costly. Multi-purpose rooms help keep costs down. Such rooms can now be furnished with a folding table that combines contemporary, slim leg styling with "solid as a rock" rigidity—the new HOWE "500". Consider these design features:

1. Unique construction eliminates visible leg braces.
2. A 3" deep, flat black, baked enamel "apron" runs the table's full length and across the ends.

3. Handsome Formica top and edge create an air of quiet elegance.

4. Legs are finished in a choice of satin chrome or flat black, baked enamel.

Good looking, the new HOWE "500" is also structurally sound. Legs are 1½" square, welded steel tubing. Each leg has its own lock; all locks operate from a single lever at the table's center. Magnets secure legs in the folded position.

HOWE FOLDING FURNITURE, INC.
1 Park Ave., New York 16, N. Y.

WRITE! Write for catalog, describing the new "500" and other HOWE CustomLine Folding Tables.



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(2) On products described in "What's New" in this issue

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(2) Information on "What's New" items:

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June, 1961

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